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Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

LIVERPOOL SOUTHERN HOSPITAL.

CASE OF COMPOUND DEPRESSED FRACTURE OF THE SKULL: DEATH.

Under the care of R. HAMILTON, Esq.

[*Reported by* JOSEPH J. POPE, Esq., *Senior House-Surgeon.*]

THOMAS WEEDHALL, aged 40, a sailor, was admitted into the Hospital under the care of Mr. Hamilton, on December 29th, 1857. He stated that on crossing the street, he had been knocked down by a cart and horse, and that the horse had kicked him on the forehead during the time he was on the ground.

On examination, a triangular wound over the frontal sinuses, of about two inches in length, was found; and on inserting the finger, a depressed fracture of the frontal bone of the same size was easily perceptible, and also some fracture of the nasal bones. There was slight hæmorrhage from the nose, and some small amount of pain at the seat of injury. With these exceptions, there were no symptoms of any injury to the brain. There was no bleeding from the wound; the pupils were not at all affected. The patient walked into the ward; and, when he was in bed, cold lotions were applied to the forehead, and calomel and opium was administered every four hours. The pulse was 84.

In the evening of the same day he was quiet, but complained of much more pain in his forehead; and the edges of the wound looked dry and irritable. A turpentine enema was administered; and a warm poultice was applied to the wound.

December 30th. He still suffered a great amount of pain over the wound; and its edges looked more everted. The portion of depressed bone was firmly fixed; and the pain was not aggravated by any pressure applied to it. The calomel was repeated; and the warm applications were continued. He was perfectly sensible, and stated himself relieved by the poultices.

About noon, however, the pain became suddenly increased, until it reached to an unbearable extent. He required two men to hold him in the bed, and very shortly began to show symptoms of compression.

3 P.M. He was perfectly insensible, and presented every symptom of compression. Upon consultation, a triangular piece of bone was now removed by Hey's saw from the region of the fracture; and by the help of an elevator a piece of frontal bone was raised, exposing the brain to the extent of about two inches, the dura mater being uninjured. Many pieces of loose bone were also removed from the ethmoid and nasal bones. The symptoms were but slightly relieved; the breathing still continued stertorous; but the pulse was less, and not so laboured. The state of the pupils could not be now seen, as the eyes were completely closed by extensive ecchymosis.

During the evening he swallowed some beef-tea, but was perfectly comatose. He was very restless, and required constantly watching to keep him in bed. No bleeding occurred from the wound.

December 31st. He was still insensible; but during the night he spoke one or two words; immediately, however, relapsing into coma. This increased; and during the day he exhibited great uneasiness about his head, and some twitching of both arms and legs. No passage through the bowels had occurred; and the urine passed away from him at times into the bed, the bladder being thus emptied by unconscious effort.

He continued in the same state until about 2 A.M. on January 1st, when he became quiet, and died at 6 A.M.

AUTOPSY, twenty-eight hours after death. On attempting to remove the calvarium, the adhesions of the dura mater were found to be very strong and numerous. The sinuses were very full, and the membranes much congested. A fracture of the frontal bone was found, extending from the foramen cæcum three inches along the anterior portion of the bone. There was a depressed fracture of the frontal sinuses (both tables); the ethmoid also was pushed backwards and downwards, so that the crista galli looked backwards and upwards. There was also a fracture of the base of the skull, extending across the left orbit into the sphenoidal fissure of that side. No clots were present, either between the dura mater and skull, or between the dura mater and brain. On removing the brain, however, a small quantity of *purulent* fluid was found in the posterior fossæ which lodge the cerebellum; and on the surface of the medulla and pons Varolii was a thin layer of purulent deposit. The puncta vasculosa of the brain were but slightly increased; but both ventricles were filled with sero-purulent fluid, in which flakes of lymph were floating about.

REMARKS. This case, at first sight, was evidently one of those in which the much disputed propriety of trephining depressed fractures of the skull, unaccompanied by any symptoms, might have been mooted. Considering, however, the situation of the fracture, the probability of only one table of the sinuses having been broken through, and the absence of all symptoms, it was thought advisable to defer operative interference for some little time. And, although the depressed bone was raised the moment the symptoms of compression were present, the case was (and always would have been) fatal from the other injuries the skull had received. The compression evidently arose from the effusion into the ventricles and on the surface of the brain; and it is singular to see in how short a time such a large amount of sero-purulent fluid could be effused, showing to what an extent inflammatory action had been going on in the membranes of the brain.

ST. GEORGE'S HOSPITAL.

I. HYDROCELE CONTAINING SPERMATOZOA: PECULIAR POSITION OF THE TESTICLE.

Under the care of PRESCOTT G. HEWETT, Esq.

A PATIENT presented himself among Mr. Prescott Hewett's out-patients on account of hydrocele. The peculiarity of this case was, that the testicle lay in front of the fluid. The sac was punctured from the back part, and a largish quantity of fluid evacuated, which was of a milky appearance, and contained a little albumen and numbers of spermatozoa.

Another case was under Mr. Hewett's care, two or three years ago, in St. George's Hospital, in which the testicle also lay in front of the hydrocele, which was globular and of large size. It was punctured at the back, and a quantity of the ordinary fluid of hydrocele let out. This case had never been under treatment previously.

In some clinical remarks which Mr. Hewett made on the first case, he mentioned two others resembling the above in the fact of the testicle occupying an unusual position. The first was that of an old gentleman who had been tapped twice for hydrocele by different surgeons, without any fluid having been evacuated. On examination, Mr. Hewett found that there was a very thick cyst, which was not at all transparent; so that the position of the testicle could not be clearly ascertained, but that fluctuation was more distinct towards the back part. It was punctured in this situation, the trocar being inclined upwards; and thus a sufficient quantity of the ordinary fluid of hydrocele was evacuated. On this being done, it became evident that the testicle lay in front; and, from the position in

which the previous punctures had been made, there could be no doubt that the trocar had been thrust into the testicle on both occasions. No symptoms had, however, followed on either.

The second case was that of a gentleman whom Mr. Hewett had casually seen many years before, when some inflammation had followed the puncture of a hydrocele. This had apparently produced adhesions in all the parts of the tunica vaginalis except the upper. When he again consulted Mr. Hewett, sixteen years afterwards, the hydrocele (which was enlarging considerably) lay above the testicle, so that it was necessary to introduce the trocar *above* the gland, which operation has now been repeated twice.

In Mr. Paget's *Lectures on Surgical Pathology*, in the recent editions of Curling on the *Testis*, and in the French translation of the latter work by Gosselin, the reader will find the question of the pathology of cystic tumours connected with the testicle and epididymis (and variously called seminal cysts, encysted hydrocele of the cord, etc.) very fully discussed. Each of the authors suggests a different mode of formation. Mr. Curling seems to think that, in most cases at least, the seminal ducts give way under the pressure of the fluid in the cyst. Gosselin, his translator, inclines to the supposition that the accidental rupture of the seminal ducts is the cause, not the consequence, of the formation of the cyst; *i. e.*, that the ducts, when distended by semen, give way under some slight violence (an accident which, according to him, is very likely to occur); and that thus a small quantity of semen is effused into the surrounding cellular tissue, and becomes the exciting cause of the formation of a cyst. Mr. Paget, on the contrary, believes that the cyst is a new formation, and that the semen is a secretion by it, which he compares to the imperfect gland tissue found in mammary cysts, etc. None of these views can be said to be proved correct, and the last is indeed only put forward as theoretical. M. Gosselin's is so in great measure, the only anatomical fact on which it rests being the existence of a hole leading into the seminal ducts; and this, it seems, is by no means constant—at least, cannot often be proved to exist. None of the theories explain the fact that these collections of spermatozoa are sometimes (rarely, it is true) found in the cavity of the tunica vaginalis. Cases of this sort are alluded to by Curling and Paget, and we have ourselves seen a case dissected in which the anatomy of the parts was, to all appearance, that of common hydrocele, no cysts were discovered, and the cavity was full of the peculiar milky fluid, containing large numbers of spermatozoa. As to the appearance of the fluid, it has been, in all the cases we have seen, of this milky or opaline consistence. M. Gosselin regards it as an emulsion formed between the fat which has been shown by Robin and Verdeil (*Chimie Pathologique*) to exist in the fluid of all cysts, and the semen, which is known to have the property of forming an emulsion with fatty matters.

Another point, of more practical importance, is the position of the testicle in hydrocele in front of the fluid. That this is sometimes the result of accident, has long been known, the accident being usually a puncture in the operation of tapping. That it may, however, occur in persons who have not been submitted to any treatment or violence of any kind, numerous cases now on record show; and this is elucidated by the researches of M. Maisonneuve, as quoted in Mr. Curling's work. In these cases, it is probable that the whole of the testicle and its appendages is turned round; so that the tunica vaginalis lies behind, and the epididymis in front: at any rate, if the latter peculiarity be wanting, the former is constantly met with. This is a fact which it is important to recollect, as it is not of very rare occurrence, and, in relation to so very common a disease as hydrocele, should be kept in mind, as otherwise the mistake may be committed which was fallen into by the two surgeons in Mr. Prescott Hewett's third case.

II. CASES OF ANEURISM IN THE MEDICAL WARDS.

By G. GODDARD ROGERS, M.D., Medical Registrar.

[*Continued from page 62.*]

CASE VI. *Aneurism of Ascending Aorta: Erosion of Sternum.* A. B., aged 39, a married woman, of delicate appearance, had suffered from languor and retchings four months before admission. During the fortnight previous to her application, she had experienced throbbing and shooting pains in the right side of the chest, which prevented her from lying down night or day. Her face was anæmic; tongue œdematous; pulse weak and slightly irregular. She complained of nausea and pain under the right breast. To the right of the sternum slight swelling was perceived. At this spot, and above the clavicle, and at the inferior angle of the right scapula, a loud systolic blowing sound was heard. There was considerable pain on deep inspiration. She was treated with henbane and nitric ether, an opium plaster being placed on the chest. Gradually her uneasy symptoms declined; and in a month she left the Hospital somewhat relieved.

Four months later, she came again under our notice. It appeared that, soon after she left the Hospital, the swelling near the sternum increased in size, and it was now as large as a hen's egg. A short sharp diastolic click was heard very distinctly over both scapulæ, and especially at the middle part of the right one. At the inferior angle the murmur was much less marked than when she was previously in the house. There was pain down to the right elbow; and she was easiest in the recumbent posture. The tumour soon became so painful that she could not even bear the pressure of an opium plaster. A true aneurismal "whirr" was heard over the sternum about a month later. Her dyspnœa gradually increased, and the inspiration was of a crowing kind. Five days before her death the systolic murmur was again heard loud and full at the inferior angle of the right scapula. Numbness of the arm came on, with orthopnœa, dilatation of the right pupil, and hacking cough, with frothy muco-purulent expectoration. She sank six weeks after her second admission, and ten months from the time of first being seen.

The body was examined about fourteen hours after death. On the right side of the chest, about its centre, there was a large fluctuating swelling of about the size of the closed fist. On dissecting back the integument and other structures, the cavity of a large aneurism was laid open full of blood, partly in a fluid state, partly coagulated. The sac had been completely absorbed in front, so that the blood was in contact with the pectoral muscle, the structure of which was much destroyed by the pressure of the tumour. The sac, when fully exposed, was as large as a cocoa-nut. On clearing away a partially decolorised clot, it was found that the tumour in its passage forwards had absorbed the right side of the sternum and the sternal end of the lower border of the second rib, whilst the sternal end of the third rib was found lying loose in the aneurismal sac. On removing the sternum and ribs, the sac was found adherent to the inner surface of these parts, just external to the point where they had been absorbed; and at the bottom of the sac a large circular smooth edged orifice of the size of half-a-crown was discovered. By this the aneurism communicated with the upper part of the ascending portion of the arch of the aorta. The aorta in the first part of its course was considerably dilated and atheromatous. The heart and its valves were healthy. Some turbid fluid was found in the right pleura, and a little recent pleurisy on both sides of the chest. The lower part of the upper lobe of the right lung was in a condition of grey hepatisation; the rest of it was œdematous. The other organs were healthy.

CASE VII. *Aneurism of the Ascending Aorta, bursting into the Right Pleura.* G. B., aged 37, a strong well built man, stated that a month before admission he was taking some horses into the country, and got wet through. The chill he then sustained brought on pain in the right side, from which he never got free. The pain was not attended by cough. Eight days before he came to St. George's, a medical man was called in a hurry to see him, as his friends thought him dying. It appeared that in the night the pain in the side became aggravated, and severe orthopnœa followed. His pulse was imperceptible, and the face and lips were quite blanched; and it was not until he had taken a considerable quantity of stimulants that he rallied. The shortness of breath and pain in the chest continued; and when he came under our notice, the whole of the right side was dull on percussion, and the heart was pushed unduly towards the left. At its apex, a systolic murmur could be heard. The affected side measured an inch more than the left one. Just at the upper part of the former, ægophony was detected. The breathing over the left lung was coarse and supplementary in its character. He was ordered calomel and opium twice a day, and felt easier for a short time, although after any lengthened examination of his chest the orthopnœa returned. Four or five days after admission he complained of excessive tightness across the chest; and after this sensation had continued about thirty-six hours, œdema of the upper extremities came on. He next spoke of pain between the shoulder-blades, which at night became sharp and cutting, and at length reached such a pitch of severity as caused him to spring out of bed with a loud cry. He fell back, and at once expired.

The body was examined fourteen hours after death. On the

left side of the chest very old pleural adhesions were found; the left lung was œdematous, but otherwise healthy. The right pleural cavity was enormously distended, displacing the diaphragm, and bulging out the intercostal spaces. It was full of blood which, when measured, was found to amount to 160 oz. The blood was partly fluid and partly coagulated, and when removed, the entire surface of the pleural cavity was seen to be covered by a thin and partly decolorised layer of blood fibrine. Distinct traces of organisation and vascularity could not be detected in it. The right lung, which was very much compressed and non-crepitant, occupied the inner side of the pleural cavity. A little serous fluid was found in the pericardium. The heart was of normal size, and all the valves were healthy. A large aneurism was found connected with the upper part of the ascending aorta. The sac was as large as the closed fist, and the orifice communicating with it was of the size of a five shilling piece, and situated at the upper and back part of the vessel. The posterior and outer boundaries of the aneurismal pouch were formed by the root and inner surface of the lung. Near the anterior free margin of this organ, and just where it became adherent to the parietal pleura, a ragged orifice of sufficient size to admit the end of the little finger established a communication between the aneurismal sac and the pleural cavity. No recent blood was found in the sac, and it was only here and there that its walls were lined with laminated fibrine. A second small aneurismal sac was seen just above the free margin of one of the semilunar valves; it was of about the size of a common nut. A third, of about the size of a pea, was found at the root of the coronary artery. In each of these situations, the coats of the artery corresponding to the sac were much thinned. The kidneys were much congested. The remaining abdominal viscera were healthy.

CASE VIII. *Aneurism of the Ascending Aorta.* A man, aged 30 (?) years, was found dead in Hyde Park, and brought for convenience to the Hospital. His body was well formed, and in good condition. On removing the front of the chest, the sac of a large aneurism of the ascending aorta was laid open. It had contracted adhesions to the structures in the fourth intercostal space on the left side. None of the structures to which the sac was adherent had been displaced, nor were they absorbed. The aneurism was about the size of a small apple, and had evidently originated from the front part and right side of the ascending aorta, about an inch above the commencement of that vessel. It involved the artery to within half an inch of the origin of the arteria innominata. The sac was quite empty, partially collapsed, and contained no laminated coagula. The aorta above the aneurism was considerably dilated as far as the termination of the arch. The walls of the heart were hypertrophied, but the muscular structure was soft, easily breaking up beneath the pressure of the finger. The valves were healthy on both sides. There were no pleuritic adhesions, and no effusion into the pleural sacs. The lungs were congested, and exhibited patches of "pulmonary apoplexy". All the abdominal organs were highly congested, but nothing more.

[*To be continued.*]

III. EXCISION OF THE UPPER JAW FOR A TUMOUR IN THE PHARYNX.

Under the care of T. TATUM, Esq.

[*Continued from page 61.*]

This patient, whose case we mentioned in our last number, is progressing very favourably. The wounds in the face are soundly united; the cheek is still somewhat œdematous, but sensation is almost perfect, and there is very little deformity of the features. The lad is up, and takes nourishment well, none of the food escaping from the mouth; but he speaks very imperfectly, in consequence of the large hole which exists in the hard palate. The edges of this latter, however, appear to be granulating; and as the large gap left by the removal of the bone is being rapidly filled up, it is to be hoped that this deficiency may be repaired. The soft palate looks quite healthy and is in the natural position. There seems no reasonable doubt now of the patient's complete and speedy recovery. We shall notice the termination of the case at a future period.

REMARKS. We mentioned in our last, while commenting on this case, that two methods of attacking such tumours are known to surgeons; namely, from below, by dividing the soft palate; or from the front, by removing the superior maxillary bone. Many considerations appear at first sight to unite in favour of the former method of operating. No important part itself perfectly healthy is sacrificed, as in the resection of the upper jaw; no disfigurement is produced; the parts divided are very vascular and prone to union; and the operation may perhaps, in favourable cases, be completed without cutting into any bony tissue, and therefore without running the risk of pyæmia, incurred in all wounds of bone. These considerations, however, are, to our minds, quite subordinate to what ought to be the first question in any important operation; viz., what method is the most certain to eradicate the disease? Now, as to this, the published accounts of cases and dissections demonstrate incontestably that most, if not all, of such tumours as these arise from the base of the skull, and usually from the sphenoid bone—a point very difficult indeed to reach from the cavity of the mouth; so that it is observable that in all the cases in which the whole of the jaw-bone has not been removed, the operators have been unable to state precisely the points of attachment of the tumour—a sure proof that the neck of the tumour has not been reached, and therefore that the operation was not in the strict sense complete. Cases are also on record in which the tumour has been approached by removing only the front of the jaw-bone, and penetrating into the nose from the outside. This proceeding, however, is so obviously inefficient in the treatment of a tumour springing from the base of the skull, that it need not be discussed in a case like the present, where the growth lies entirely behind the antrum. The two other operations are to be found described and numerous cases in which the second was resorted to detailed, in the *Bulletin de la Société de Chirurgie de Paris.* In the first volume of that publication, p. 159, is a case in which M. Nélaton operated on a tumour situated behind the palate, which bled profusely. The soft palate was divided; the mucous membrane was dissected off from the posterior part of the hard palate; the latter was then perforated in order to apply cutting forceps to it, by which means sufficient of the bone was removed to expose the base of the tumour, situated near the pterygoid process (the exact spot is not specified), which was then severed by curved scissors. The flaps of the soft palate were kept disunited for some days, in order to apply caustics to the base of the tumour. It is clear, therefore, that the latter was not removed entirely. The case was complicated by an accidental attack of pericarditis, from which, at the date of M. Nélaton's communication to the Society, the patient had sufficiently recovered to be pronounced out of danger from this cause. The tumour was also so far destroyed that M. Nélaton thought it then safe to proceed to the cure of the wound in the palate. The sequel of the case, however, does not seem to be given. The description of this operation is not so encouraging as to lead to its renewal in preference to the resection of the upper jaw. It is only too clear from the account, that even so able a surgeon as M. Nélaton found it impossible, in the limited space which this proceeding gives, to discover the real attachment of the tumour, and that the really essential portion of the tumour—viz., its base—was left to the action of caustics, at best an uncertain resource, and in a deep cavity at the bottom of the mouth, doubly uncertain and highly dangerous. In the second volume of the same Transactions, p. 491, is a discussion upon a tumour presented by M. Huguier, which originated near the right anterior lacerated foramen, and projected into the pharynx, the right nostril, and zygomatic fossa. The opinions of the Society were much divided on the proper method of treating such a case as this. M. Huguier was in favour of removing the front and outer part of the upper jaw; then forcibly thrusting the hard palate downwards, so as to obtain sufficient space to afford a view of the attachments of the tumour, and to remove it; after which the palatine arch might, he thought, be restored to its proper position, and would unite again with its natural attachments. In this proposal he was supported by MM. Gerdy, Chassaignac, and Roux; while MM. Maisonneuve and Robert strenuously advocated the operation which appears since then (for this discussion took place six years since) to have been steadily gaining ground in France—that of removing the upper jaw-bone. Numerous cases of the latter operation are to be found related in the same valuable series, principally from the practice of MM. Maisonneuve and Robert. The operation appears to have been first practised, more than twelve years ago, by M. Flaubert, jun., of Rouen, who operated thus with success on a case which had been under his father's care, and where the ordinary method had failed. The operation succeeded, but it was condemned by the majority of surgeons and medical publications at the time. It was, however, repeated some years afterwards by M. Michau of Louvain, also with success. M. Robert's operation, which took place in 1849, was also suc-

cessful. The upper jaw-bone was removed by a single incision; the tumour was exposed behind it, and separated from its attachment near the upper vertebræ. The actual cautery was applied to the internal maxillary artery, which bled; and to the root of the tumour. The operation is said by the operator to have lasted half an hour, and to have been frightfully painful. May not this, however, have been on account of the single incision having been used—a modification which does, indeed, entail less mutilation of the exterior of the face, but which, in an operation involving such deep parts as are concerned in this, is surely unadvisable, as tending to cramp the operator, to prolong the steps of the operation, and obscure the view of the neck of the tumour.

Of the other cases related in these volumes, it is not necessary to cite more. In some, the tumours have been treated by partial excision of the jaw; but the progress of the cases, as well as the dissections of others which have not been operated on, sufficiently show how much the entire removal of the bone is to be preferred over an operation which involves as much external mutilation, and which cannot in most cases be completed without violent luxation of the palatine arch, and its subsequent replacement—a proceeding too uncertain and too rough to be generally adopted. In one of the reported cases, the tumour has recurred, probably in consequence of incomplete removal. Here, however, the excision of the upper jaw-bone was found of great service, as it permitted easy access to the new growth which projected beneath the cicatrix.

It may be noticed as a gratifying circumstance, that no death is reported to have occurred after the operation.

Original Communications.

ON DISEASES OF JOINTS.

By Holmes Coote, Esq., F.R.C.S., Assistant-Surgeon to St. Bartholomew's Hospital, and to the Royal Orthopædic Hospital, etc.

III. AMPUTATION OF THE THIGH FOR DISEASED KNEE-JOINT.

I know of no operation which has less to recommend it than amputation of the thigh. Not only is it, in common with other amputations, a confession of ignorance, but it exhibits a statistical return of mortality peculiarly unfavourable. Out of 19 cases of amputation of the thigh performed at University College Hospital, 8 recovered and 11 died, or a mortality of 58 per cent. Malgaigne's statements of statistics from the Parisian hospitals differ in no essential point. Out of 46 amputations of the thigh for injury, 34 died, or 75 per cent.; out of 153 similar operations for disease, 92 died, or 60 per cent. There are no published statistics upon this point from St. Bartholomew's Hospital; but I may state the opinion of one of the most experienced of my colleagues, who informed me that, in his own practice, he had met with a mortality of above 50 per cent. Mr. Syme affirms that the average frequency of death is not less than from 50 to 70 per cent.

It is not, therefore, without warrant that I repeat, the operation has little to recommend it; and this little will shrink into yet smaller dimensions when we examine the condition of the limbs so removed on account of disease, and inquire what might have been the result of the cases had proper treatment been pursued from the beginning.

From the following remarks I exclude all cases of injury demanding immediate amputation of the thigh. In such instances, the only chance hangs upon the discernment and judgment of the surgeon. To postpone operation is to sacrifice the patient's life; and I know of no circumstances in which the decision of an able surgeon comes out to greater advantage.

If we except severe injuries from accident, and other injuries equally severe from surgery, namely, premature incisions into a joint, the cases which demand amputation are amazingly few; and, as a proof, where one surgeon operates sixteen times, another, with equal opportunities, operates but once or twice.

For many years I have had opportunities of examining limbs removed by this operation. I shall abstain, while describing the morbid appearances, from mentioning either the name of the operator or the source whence the specimen was obtained, trusting that my own name will be accepted as a guarantee of good faith.

It is well known that the synovial membrane is subject to a pulpy degeneration, by which it acquires great increase in thickness, and a light brown colour. It spreads over the articular cartilages, which become ulcerated; and invades the neighbouring soft structures, especially the synovial sheaths. This morbid change was once regarded as malignant, and even now is very generally considered as leading to irrecoverable disorganisation. I once saw a limb removed from a young person in whose knee this degeneration of the synovial membrane had taken place. The cartilage, however, was untouched, presenting its usual glistening white hue. To my inquiry why the limb had been removed, I received a most decisive reply: "This disease in the synovial membrane leads to changes which experience teaches are irreparable as regards the recovery of the limb." Upon this point I entertain a directly opposite opinion, believing that the pulpy degeneration is only a stage in the disorganisation of the synovial membrane; that, when the membrane is destroyed, the articular cartilages, deprived of their lubricating secretion, require removal likewise; but I am convinced that these are stages in the process of repair; and that, with care and judicious treatment, the limb may be preserved—stiff, indeed, from fibrous adhesion, but straight and firm, and able to sustain the weight of the body.

Case I. In 1846, amputation of the thigh was performed by a surgeon for disease of the knee-joint, which I had the opportunity of examining. The synovial membrane was thickened, softened, and discoloured, and overlapped the articular cartilage, which was loosened from the subjacent bone. The bone itself was vascular, but otherwise healthy. Some absorbent glands in the popliteal space were enlarged, and full of the light grey synovial matter, which was probably becoming absorbed. The disease had existed several years, and was considered by the patient to have resulted from a sprain. The flap operation was performed; and a vast number of blood-vessels required to be tied.

Case II. In the same year I examined another knee-joint, taken from a boy who had been kept in bed very many months. The bones were light and thin, only the external wall remaining, which inclosed a hollow tube filled with light brownish coloured fatty matter. The epiphysis was entire; there was a hard lump of bone embedded in the femur, at the junction of the epiphysis with the shaft. The synovial membrane was reduced to a light brown coloured pulp: the remains contained many small blood-vessels. The cartilage was absolved from the articular extremities of the bones; the ligaments were loosened and elongated. But the bones were covered in many parts with a soft granulating structure; and *union seemed to be taking place.*

Case III. In 1848, a diseased knee, following a fracture, was removed, in consequence of severe pain experienced by the patient, by amputation of the thigh. Examination of the limb showed that the tibia, fibula, and femur, were quite healthy, but united by firm fibrous tissue; the synovial membrane and the cartilage were in great part absorbed.

Now, what are the inferences which we may deduce from these three cases? That this disease is of incurable nature? Most assuredly, decidedly the reverse. In every instance, the process of repair was going on. Case I illustrates the first stage of gradual absorption of the grey pulpy synovial membrane, the loosening and gradual absorption of the articular cartilage at its union with the bone, which becomes covered with vascular granulations. Case II shows a further removal of synovial membrane and articular cartilage, elongation of the ligaments, and commencing union of the opposed bony surfaces by vascular granulation; Case III, complete absorption of the different constituents of the joint, and union by fibrous adhesion. In some few points, the connecting medium was osseous.

If these joints were in process of repair, it may be asked, Why were the limbs amputated? The reason usually assigned is, that the constant pain to which the patient was exposed disturbed his rest, impaired the appetite, and exhausted his powers. It is commonly stated that nature is unable to bear the protracted suffering, and an operation is necessary to save life. But upon what does the pain depend? Not upon the mere thickening of the synovial membrane, for cases are numerous enough in which patients bear with this infirmity for many years. The limb is weak, and apt to ache, especially if unsupported; but no complaints of severer suffering are uttered. The existence of pain seems due to many causes;

among others, to the pressure by the loosened cartilage on the layer of highly sensitive and vascular granulations springing from the inflamed or over-vascular bone. The patient cannot bear to have the joint jerked; he flexes the limb, in the case of the knee, that the lateral ligaments may be relaxed. The muscles hold the bones just in that position, with a spasmodic action, by which pressure is most avoided; and the sudden plunge and start, with the scream of pain, just when sleep is coming on, arise from the relaxation of the muscles at that moment, and the movement and jarring of the bones. No proper amount of rest can be obtained without a support; and the application of an instrument requires anatomical knowledge. To force the contracted limb into a straight position is an act of positive barbarity. For common purposes, a splint consisting of two iron cradles, one for the thigh, the other for the leg, united by a joint and screw, answers sufficiently well; but, in other cases, a more complicated apparatus may be required, by which not only flexion and extension, but abduction or adduction, may be obtained. The relief gained by taking off pressure from opposed ulcerating surfaces is often immense; and a little soothing treatment adds equally to the patient's comfort.

The consequences of constant motion between parts so diseased as the denuded bones of a joint may be easily imagined. We should not expect to see an ulcer heal which we scraped once a day with a knife: how unlikely, then, are denuded bones to unite, when perpetually rubbing against one another. The cancellous texture of bone becomes so much inflamed that it dies, and separates in one or more irregular masses. In 1849, a diseased knee was removed by amputation of the thigh, where the following morbid appearances were noticed. The patella was strapped tightly to the outer condyle, with which it formed a distinct articulation. The articular cartilage was removed by absorption, and the surface of the bone was rough. Upon the surface of the outer condyle of the femur a small bit of dead bone was seen imbedded in the cancellous structure of the femur. The ligaments of the knee-joint were entire, but softened; the anterior crucial ligament readily gave way; the semilunar cartilages were absorbed. Upon the inner condyle, the surface of the bone was denuded of articular cartilage; it was rougher and denser than natural. The outer condyle of the tibia presented a disc-like surface, of ivory-like hardness, denuded of cartilage, and surrounded by a ragged border, indicating the situation of the semilunar cartilage. The corresponding surface of the femur was rough, and denuded of cartilage. Two pieces of dead bone were imbedded in the cancellous structure of the head of the tibia, one of which lay in a cavity containing pus.

No doubt can be entertained that many of these changes were due to the want of rest between the diseased surfaces of bone. The outer surface of the tibia rubs, in the natural movement of the knee, against the corresponding surfaces of the outer condyle of the femur, in rotation outwards, in the flexed condition of the leg; the inner articulating surfaces acting as the pivot. This is what takes place when the heel is turned inwards in spurring, etc. The rotatory movement seems to have made the surface of the tibia as hard as ivory, while in the proximity were the common indications of inflammation of bone, abscess, and necrosis.

In former times, amputation was even more extensively employed for diseases of joints. The remedy was not calculated to become popular. Resection is now in vogue, claiming as its patron the spirit of conservative surgery. I affirm that the attractions of the operating theatre have induced surgeons to neglect the study of orthopædic appliances. Such means have not been tried with half the zeal which has been manifested in the cause of the knife. I know of two cases at the present time, one under the care of Mr. Tamplin, the other treated by the late Mr. Lonsdale, in both of which the knee-joint was condemned. Both patients have been relieved by other means, and can now use the diseased limb with a freedom which secures the power of easy locomotion.

Case iv. A young girl, educated for a governess, caught cold in 1853, being at that time sixteen years of age, and suffered from an attack of rheumatic character. In December 1855 a second attack ensued in consequence of cold brought on by wet feet, and the rheumatism settled in the right knee, which become much swollen. Hot fomentations, leeches, blisters, etc., were ordered, and under proper treatment the pain and swelling subsided, but the leg remained stiff and contracted. The knee was then strapped and rolled for a fortnight; but, no benefit ensuing, frictions with a stimulating liniment were employed; this was followed by warm fomentation with salt and water, which was continued until the beginning of the summer of 1857, when all treatment was discontinued, and further advice was recommended. During the time when the pain and swelling were at their height, the removal of the limb by amputation was recommended in consultation. This measure was very properly declined.

She was admitted into the Royal Orthopædic Hospital under Mr. Tamplin. She is a well made and healthy-looking girl, but of naturally pale complexion. The state of the right lower extremity constitutes her only complaint. The tibia and fibula of that side are dislocated backwards and outwards from the lower extremity of the femur; the tendon of the biceps flexor cruris muscle is tense; the leg is firmly bent to a right angle on the thigh; the patella bound down upon the outer condyle of the femur; but the soft parts composing the joint are in a quiet state; there is neither heat nor swelling; sufficient motion exists between the bones to show that osseous anchylosis (always a rare occurrence) has not taken place. The apparatus for slow extension was applied.

Jan. 4th, 1858. The leg is so much straighter that she can support herself upon it; she is free from pain, and has every prospect of possessing a perfectly useful limb.

Jan. 22nd. She still wears the instrument, but the leg is coming into good position.

Case v. Mary Anne H., aged 22, is at the present moment under my care in St. Bartholomew's Hospital on account of a diseased condition of the left knee. She states that when quite a child the knee-joint became swelled and painful after a sprain; that she was a long time under treatment; and that she remembers a recommendation and proposal that amputation should be performed at the thigh. The whole limb is smaller than the opposite; the leg is bent upon the thigh; and the tibia and fibula are drawn backwards and outwards from the articulating extremity of the femur into the popliteal space. The tendons of the hamstring muscles are tense. She walks with a single crutch, the toes of the affected side being six inches from the ground. I divided the tendons of the biceps flexor cruris; and directing the girl to lie in bed, applied weights to the foot, commencing from three pounds and reached seven, by means of a cord and pulley. In the course of three weeks I have obtained elongation of the limb to the extent of four inches, and the patient, for the first time since infancy, is able to walk unaided, and without the use of the crutch. I hope still to obtain further lengthening of the limb; and this would be the case without fail, were there all the appliances, such as are attainable in private life. But in the present condition the patient was admitted a cripple, and unfit to follow any useful occupation; and she will be enabled, with the assistance of a high-soled shoe, to discard her crutch, and walk from the hospital with sufficient activity to gain some employment by which she can earn a livelihood.

THE METEOROLOGY OF 1856 and 1857.

By J. A. Hingeston, Esq., Brighton.

The meteorological phenomena of 1856 and 1857, so far as they relate to the public health, may be grouped into a single tableau, comprising a consecutive chain of events. As the fatal year of 1854 was not less remarkable for its epidemic than for its atmospheric peculiarities, so the three following years, from 1855 to 1857, were no less remarkable for their salubrity; and, with a few exceptions, the regularity of their seasons. During their course, cholera was absent altogether as an epidemic; the south-westerly winds prevailed, the temperature was normal, and the rain-fall sufficient. The meteorology of 1854 was published in the Association Medical Journal, No. cxl, February 16th, 1855, p. 151; and that of 1855, in the same Journal, No. cix, January 26th, 1856, p. 66: and I now proceed to draw up a summary of the years 1856 and 1857, from daily records of my own as well as from those of the Astronomer Royal, at Greenwich, published in the *Registrar-General's Weekly Returns of Deaths, etc.*

The winter of 1856 was generally mild. Snow fell on three days in February, the 20th, 23rd, and remained upon the ground for only one day, the 21st. Upon the quarter ending March 31st, the temperature was somewhat in excess; the air was very moist, though the barometer indicated dry weather; and the equinox was calm. The spring was cold and wet. April, indeed, was congenial, and suitable to farming operations; but May set in with rigour, being 4° Fah. less than its average. The nights were chilly, and the grass and young crops suffered in consequence. The 31st was 9° Fah. below

the average of the season. Thunderstorms were frequent, as well as strong gales of wind and rain; and the spring, which had opened with such excellent promise, closed unfavourably to the haymakers, gardeners, and florists. The apple trees and wall-fruits were utterly blighted. The bees were unable to set the blossoms. There were dark mists, and flights of small black flies. Between January 1st and June 30th, there were as many as fifty-six days of fog, mist, or haze, or about one-third of the whole period. July was also dark, misty, and cold. There were some short intervals of excessive heat; the thermometer standing at 102° Fah. in the sun, and 75° Fah. in the shade, on June 27th and 28th; and there was another scorching interval from July 30th to August 11th, when the thermometer rose to 113° Fah. in the sun, on the 2nd of the latter month. But August closed with mists and a damaged harvest.

But at this time the weather cleared up, and the next sixteen months that followed were uninterruptedly seasonable and pleasant. From September 1856 to December 1857, everything proceeded well. The temperature was at the average of the respective seasons. The autumn of 1856 was fine and open. The winter began early with a fall of snow on November 26th, and ice formed upon the ponds to the thickness of three or four inches. The greatest cold in the night was 26° Fah. There were some interruptions to the frost and snow. The end of the old year, 1856, and the beginning of the new, 1857, were mild; but the frost set in again on January 16th, and the snow lay upon the ground from the 24th of this month till February 11th. The greatest cold in the night was 22° Fah. The weather continued wintry and frosty, with occasional falls of snow, till the middle of March, when the spring suddenly opened, and the winter disappeared. The trees budded, and the swallows returned early; and from April 29th till November 29th following, there was not a single frosty night, so frequent in this country, even at midsummer. The sky was blue, and chequered with clouds. The cirri were numerous. The mornings and evenings were delightful. The nights were starlight, and the temperature was equable. Though June was remarkable for its intense heat, the 28th of that month being the hottest day we have experienced since July 6th, 1846; yet the heats of summer were not oppressive, and we were allowed to enjoy the splendour of a tropical climate, without being exposed to the imminent perils of the tropics. The fruits were abundant, the cereals excellent, and the cultivation of the land propitious. The autumn was particularly pleasant, and the close of the year mild, bright, and cheerful.

The amount of rain-fall in 1856 was 12·06 inches in the first six months, and 15·20 inches in the last six; which was rather above the average. In 1857, the rain-fall measured 25·81 inches, or about the average. The last six were as usual wetter than the first six months. The driest were February, June, and December. August was among the wettest, and October the wettest of all.

The S.W. winds blew one hundred and sixty-four days in 1856, or more than half the year; and in 1857, for two hundred days, or nearly two thirds. In 1854, the year of the cholera, the prevailing winds were N., E., S. But, storms apart, the movement of the air, although continual, has not been strong during the past year; for the millers inform me, that they have been able to work their windmills less this year than in most others. On the 7th and 8th of October, there was one of those severe storms, from the S.W. S., which Humboldt calls magnetic. The magnet was disturbed several days previously, and a long streak of cloud passed from S. to N., in the line of the magnetic meridian, before the storm burst. The barometer fell to 28·790 inches. The force of the wind, as estimated by Whewell's anemometer, at Greenwich, was represented at the rate of 205 miles in the day.

The harvest of 1856 was late, and badly got in, owing to the dampness of the weather; but in 1857, the crops were universally good and abundant, and the reaping unusually early and complete.

The meteorological conditions appear to have been generally favourable to health. The mortality during the first half of 1856 was below the average in the proportion of 21 to 23 per 1000, and the births were at the same time unprecedentedly high. The natural increase of the population from diminished deaths and increased marriages in the first quarter of 1856 was, according to the Registrar-General's *Quarterly Returns*, no fewer than 66,044 in England alone; and in the last quarter of 1856, the mortality sank as low as 20 per 1000 per annum. In the first quarter of 1857, the natural increase of the population of the United Kingdom was calculated to be at the rate of 1000 a-day; while in the second quarter it probably exceeded 1100 a-day; and the same ratio of increase was recorded till the close of the quarter ending September 1857. (See *Quarterly Returns of Marriages, etc., published by authority of the Registrar-General*, 1857, No. 33, p. 2; and also No. 34, p. 2.)

During these two years, there have been several atmospheric and telluric phenomena deserving of notice. On January 6th, 1856, there was a meteor, at sunset, visible at Rouen, in France, and at Knolles Park, in Wales, at the same time, giving a base-line of 250 miles, and, by triangulation, its approximate altitude was found to be sixty miles above the earth's surface at least; and on December 17th, 1857, another meteor was visible at the same time at Durham and at Brussels, giving a base-line of 400 miles, and consequently an enormous elevation of the fiery globe above the earth, probably not less than 150 miles. The size of these two meteors must have been something prodigious.

On October 12th, 1856, there was an eclipse of the moon. As the earth's shadow passed over her surface, the darkened portion of her disk became of a reddish tint, with a pale green edging. An unpleasant twilight pervaded the land and sea, and the stars shone with a faint and sickly splendour through the gloom. It was on this night that the shock of an earthquake was experienced at Malta.

Several earthquakes were reported in these two years. The Punjaub was visited by a succession of them, and the first shock was felt at Lahore on Sunday, May 9th, 1856. It caused a feeling of sickness. The weather was sultry. On Wednesday, June 25th, there was a shock at Adelaide, in South Australia; and Last Island, in the Gulf of Mexico, was submerged and entirely covered with the sea about the same time, and seventy-five lives were lost. On October 12th, a very severe one was felt in the Mediterranean, extending from Calabria, in Italy, to the island of Rhodes; and its focus seems to have been about Rhodes and Candia; at the latter place, 500 mangled corpses were dug out of the ruins, and not more than fifty houses remained uninjured. It was felt at Macri, on the coast of Asia Minor, opposite Rhodes, and at Beyrout, in Syria. It stopped the pendulums of the Royal Observatory at Palermo. The barometer stood at 30·201 inches. There was a fog at the time. The English steamer, *St. Andrew's*, felt the shock at sea, 300 miles from Rhodes, and sprung a leak. A deluge of rain followed. The sentries at Malta reported a red glare in the heavens, and the dogs howled previous to its occurrence. On the night of December 17th, 1857—the night of the meteor seen at Brussels and Durham—a violent earthquake shook the kingdom of Naples. Its focus seems to have been at Salerno. It extended as far as the coast of Africa on the south, Croatia on the east, and Bavaria and Sweden on the north. The shocks were repeated for several days afterwards. Many other towns, Polla, Polenza, and Sola, besides Salerno, suffered greatly, houses being thrown down, and the earth rent in twain. It destroyed 14,000 lives, at the lowest computation. Lesser shocks were felt at sundry places: at Constantinople, in February 1856; at Sedge Hill, Wilts, in England, in March 1857; and at Aix la Chapelle, and Coire, Grisons, about the middle of June, in the latter year.

Vesuvius was in action throughout 1857, but chiefly during the summer and autumn. In the beginning of 1856 there was a volcanic eruption of some violence from a mountain called the Mauna Loa, 1,200 feet above the level of the sea, in the Sandwich Islands. Near the Azores, the master of the British schooner *Estramadura*, of Glasgow, reported an eruption of hot vapour from the sea, on a clear day, November 25th, 1857. In Central America, as well as along the mighty chain of the Andes, and also in the volcanic groups of islands in the Southern Ocean, the volcanoes have been continually at work.

That the action of internal fire, thus manifested by volcanoes and earthquakes, powerfully modifies the temperature of the air and its barometrical pressure, there can be no doubt. It is not possible that a large funnel, such as that of Vesuvius, should continue emitting vast bodies of flame and red hot lava, without diffusing a very great amount of heat extensively throughout the upper regions of the atmosphere; and the heated gases that escape from fissures in the rocks produced by earthquakes, or the boiling vapours forced from the depths of ocean by the same stupendous agency, cannot fail to help in producing the same effects. From some observations that I have made, but too long to be narrated here, it appears to me that changes of temperature are due as much to the earth itself, in its capacity of a globe charged with caloric, both latent and free, as to the air we breathe, or the sun's rays by which we are warmed and lighted. Certain it is that the heat, measured

by a thermometer, with its ball two feet below the earth's surface, by no means corresponds with the variations of the air above; indeed, its variations seem to be influenced by causes of its own; and such may be the case. For the earth, besides being the magnet in chief, is the largest of electrical bodies; while its interior is evidently a laboratory alive with elements perpetually undergoing their electro-chemical changes on a gigantic scale, and producing results of which volcanoes and earthquakes are but partial, though enormous, phenomena. The magnetic and electro-chemical action of the earth itself, on the health of mind and body, must be as powerful as it is constant and immediate.

Spots appeared in the sun in March, and gradually increased in number and size as the year went on. They recur about every eleventh year in a century, and are supposed to be coincident with a hot summer: 1846 was hot, so was 1835, and so were also 1824 and 1813.

The Asiatic cholera was reported from the Crimea and Vienna in the spring of 1856, and a few solitary cases were recorded in the Registrar-General's returns, but it was not rife in the United Kingdom throughout the whole of that year. It was the same in 1857. A few cases were reported in August and September, but the disease never gained ground, and in each case it might be attributed to local causes or infection from the Continent; for it prevailed in Hamburg, on the Elbe, as at Glückstadt, for instance, and along the shores of the Baltic, from Finland and Denmark, to St. Petersburg, in August and September; but the British isles were entirely free from it in its epidemic form. The second week of September, hitherto its worst period in this country, showed a gradual diminution of cases, which had been on the increase during the two preceding months; and it must be observed that the weather, peculiar to the cholera, had been altogether absent both in 1856 and 1857; thus affording a negative proof of the coincidence of atmospheric peculiarities with the rise, progress, and decline of the disease.

Should the morbific condition of the air, which seems to be its efficient cause, cease altogether, there is every reason to suppose that the disease would cease also, and that the Asiatic cholera, the dreaded pest of recent years, would, like former epidemics, at length vanish from the earth, and be remembered only among the data of the past. Should the north-westerly winds from the Baltic and the north of Germany, which have always prevailed in cholera periods, loaded as they are with chilly vapours, snow, or drizzling mists, give place to the more genial gales from the south-west, warm from the gulf of Mexico, for several summers in succession, I cannot forbear from expressing my conviction, that the Asiatic cholera would not recur during such favourable seasons, but would, were such seasons continued long enough, at last disappear from Europe, and, in fine, never be heard of again in the western hemisphere.

Clinical Lecture

DELIVERED IN THE

QUEEN'S COLLEGE, BIRMINGHAM,

ON JANUARY 16TH, 1858.

By Joseph Sampson Gamgee, Esq., Surgeon to the Queen's Hospital.

RUPTURED PERINÆUM OF OLD STANDING: WOUND OF RADIAL ARTERY AND WRIST-JOINT: SCROFULOUS DISEASE OF KNEE-JOINT: GENERAL REFLECTIONS.

Gentlemen,—The cases which I am about to bring before you have already been the object of our conversations at the bedside. As they illustrate important therapeutic principles in some of the commonest surgical affections and injuries, the observations I am about to make may not be the less profitable, though to some extent a repetition. I cannot sufficiently commend to you the reiterated contemplation of simple cases, the foundation of the most generally useful knowledge.

Case I. *Ruptured Perinæum: Procidentia Uteri: Partial Rectocele and Cystocele.* Jane Stephens, aged 32, was admitted in No. 1 Adelaide Ward, last December. For years, she has been an out-patient at the Queen's Hospital for scrofulous disease. She married thirteen years ago; her first confinement, a year afterwards, was difficult; labour lasted seventy-two hours; instruments were employed. The third day after delivery, while being moved from her bed into a chair, she "felt something give way", as though the inside was dropping through. At the same instant there was a gush of blood. On the tenth day, she left her bed, and shortly resumed work. The womb gradually descended, and made its appearance externally in the ninth month; the protrusion has continued to increase.

On admission, she complained of pain in her loins and down the thighs; and of pain and difficulty—often very great—in defecation. Sometimes micturition was impossible, unless the uterus were pushed back.

You doubtless have a clear recollection of the large size of the vaginal orifice, from which a pear-shaped lump as big as my fist protruded; its surface was skinny; and on the face of its lower and broadest end you saw the transverse opening into the uterine cavity. I showed you how the catheter passed into the urethra did not go upwards and backwards as in the normal condition, but passed downwards and forwards on to the front of the tumour; my finger, introduced into the rectum, could with ease be turned forwards and downwards, and its end was readily perceptible at the under surface of the protruding womb.

The poor woman was quite unable to support the organ in its natural position; and she implored relief.

Diagnostically, a more simple case could not be imagined. The perinæum had been ruptured to within a quarter of an inch of the rectum, so as to enlarge the vaginal aperture, and admit of the protrusion of the womb, easily distinguishable by its size and shape, and by its relations with the bladder and rectum, which were also partially displaced, as a mechanical result of the traction exercised upon them. As a typical case of such injury, the one under consideration might be profitably studied under all its bearings; but time will not allow us to do so at present, and therefore I shall limit myself to convey to you the reasons which led me to do something in compliance with the poor woman's request for relief. I shall recall to your memory the steps of the operation performed, examine its results, and endeavour to anticipate the final issue.

The patient's suffering and discomfort were considerable: for obvious mechanical reasons, they would go on increasing. Recorded surgical experience proved that an operation might be undertaken with a palliative intent, with a great probability of success, practically with no danger to life, or of aggravating the local mischief, if the attempt at relief failed. That attempt consisted in contracting the vaginal orifice, so as to prevent protrusion of the womb. With this view, the patient was placed on the operating table in the lithotomy position; the uterus was pushed back; the bladder emptied, the bowel having already been relieved of its contents. A strip, about three-fourths of an inch wide, of mucous membrane and contiguous skin, was dissected from the posterior two-thirds of the vaginal aperture, in a horseshoe shape. No vessel required tying. The cut surfaces were approximated by three loops of quilled suture, and the edges of the skin with five points of interrupted suture: apposition was perfect, but a few drops of blood were lost. You noticed how deeply I passed the long handled needle bearing the loops of twine which were on each side firmly tied over the piece of bougie. With a probe-pointed bistoury, I divided the fibres of the sphincter ani on each side, so as to keep that little muscle quiet. The patient was carried back to bed, and laid on her left side, with the thighs semiflexed and tied together. There was nothing original in this proceeding, founded on the first rudiments of plastic surgery. In dividing the sphincters, I followed the example of Mr. Baker Brown, who, after Roux and Dieffenbach, has done much to generalise this plan of treatment.

The after treatment was simply but efficiently conducted by Mr. Allis Smith, the house-surgeon. The urine was drawn off by catheter several times daily, to prevent its trickling into the wound, and to avoid effort. Opium was freely administered, to keep the bowels quiet. The middle loop of the deep sutures was cut on the fourth day, but not until the tenth were all the sutures removed. Only slight fever supervened. Locally, all proceeded satisfactorily; and you now see that union was perfect throughout the whole extent, superficially and deeply; and the woman has a good perinæum of average depth. The uterus can be felt just within the vaginal orifice, and does not protrude when the woman walks about with the support of a T bandage. It protruded, however, to a slight extent, during efforts at defæcation, the day before yesterday. I purpose further diminishing the size of the orifice by snipping off some redundant

mucous membrane within it; and I shall cauterise the wounds, so as to favour contraction of the cicatrices. The palliative intent is in great measure attained; something more may be done without risk.

You may now profitably look over the discussion to which this operation—perineoraphy—has of late given rise in the medical journals. As usual, you will see examples of too hasty generalisation, of unnecessary complication of a very simple question in practical surgery.

Case II. *Division of Radial Artery: Wound of Wrist-Joint.* You occasionally see the subject of this observation as a convalescent out-patient. I shall first read you the notes taken by Mr. Anderson.

George Parry, aged 20 years, stout and healthy, was admitted into the accident ward the 20th of November, with his right forearm wrapped in numerous cloths soaked in blood. On removing them, an incised wound was exposed, extending for about two and a half inches obliquely across the wrist-joint, just below the lower end of the radius. Mr. Clarence Pemberton and Mr. Alderson, who admitted the patient, were of opinion that the wrist-joint was opened, and the radial artery wounded. They very properly attempted to tie it; but, the patient having fainted from loss of blood, they had no guide to the precise seat of the arterial lesion, and were obliged to be satisfied with applying a tight compress, and to order the patient to be kept perfectly quiet, with a loose tourniquet on the arm. Slight secondary hæmorrhage occurred on the third, and again on the fourth day; but, by keeping the man quiet, the limb at perfect rest on a splint, and the part irrigated with cold water, matters proceeded most favourably. No further bleeding occurred, and the wound healed. You occasionally see the case in the out-patient's department, the movement of the joint not having been yet perfectly regained. There is, however, very little to complain of even in this respect, for all the movements of the joint are perfect in kind: time and exercise will restore the impaired freedom.

This case belongs to the most serious class of injuries—arterial and articular wound combined. Unquestionably it jeopardised the limb, and its preservation depended on judicious treatment. The officers on duty attempted to ligature the wounded vessel, in accordance with the fundamental surgical principle, that, when an artery is wounded, two ligatures should be applied, one above, the other below the opening in the vessel. But, as not unfrequently happens, those gentlemen could not attain the desired end; hence the only alternative—well applied pressure. The secondary hæmorrhage, which occurred on the third and fourth days, was of small amount; but, had any recurred, I had determined to tie the humeral artery. My reasons for this determination, as stated to you at the bedside, were that, in the event of some measure being called for by further bleeding, I should not endeavour to tie on the spot, which I should do in the majority of cases, because the cutting required for the purpose would seriously complicate the already considerable wound into the wrist-joint. Neither did I think of tying the radial and ulnar in the neighbourhood of the wound, because experience proved that such a measure, though sometimes successful, often failed in arresting hæmorrhage from wounds in the hand. You may remember—at least, I hope you noted as you should have noted—some leading cases in point, which I quoted from the records of surgery, and commented upon, as bearing on the condition of our man Parry. Happily, pressure and cold irrigation dispensed with further measures. The wound was simply dressed with wet lint, but never probed. On admission, synovia had been seen oozing out; but, even if I had doubts as to the implication of the joint, I should not have sought to remove them with the probe; such a practice would, at least, have been useless; probably, in its meddlesomeness, mischievous. From the site and character of the wound, the very strong probability was, the joint was opened. All that was to be done was to keep it at perfect rest, and dress the wound in the most simple manner. The result could not have been more satisfactory. The patient's health was good throughout, and he was carefully but plentifully fed.

Case III. *Scrofulous Disease of Knee-Joint.* The third case which we shall pass in review this morning, is that of John O'Neal, now in the detached ward with scrofulous knee joint. He is a young man, typically lymphatic, miserably thin. He has been a sufferer the last nine months. The joint (the right) is two inches in circumference larger than its fellow, the patella sound, as deducible from its perfect outline; no surrounding redness; great elasticity under palpation; on this point—an important one in diagnosis—I endeavoured to make each of you personally satisfied. Cases of this kind are the very best on which to train for the *tactus eruditus*. The poor fellow suffered great pain in the joint, particularly under the ham, and frequent startings in the limb at night,—the old story in such cases. We have given the man plenty of good food, beer, cod-liver oil and iron. Two days ago I fixed the whole limb in a starched apparatus, and to-day the man is in comparative ease; when the casing is quite dry he will be able to get about, and I believe, do well.

It is to the treatment of the case that I wish especially, though briefly, to address myself.

There are still many surgeons, who, in a case like the present, would leech, lotion, and blister. Forty years ago, Sir Benjamin Brodie wrote against this method, and it is surprising that his teaching in this respect has not long since acquired universal assent. These swelled joints in scrofulous subjects, slowly originating, but obstinately growing worse if not well treated, essentially owe their origin to a constitutional defect or taint. The weakly subjects want blood instead of being able to lose any; they require ease, and not irritation; the swelling is not inflammatory, but due to a deposit of poor lymph; the pain is not an essential feature of the disease, and, like the swelling, can almost always be relieved by pressure, and complete immobilisation of the limb from the heel to the hip. Short splints are of no use; when the joint is easy the patient can get about on crutches or sit at the window, or be otherwise exposed to the best hygienic influences. You have seen me illustrate these principles in practice in other cases; there is nothing original in them, but there is much that is by too many neglected; when they shall be universally respected, you will hear less of excision of the knee-joint. How curious that so much is said of this operation—so little about the manner of saving the diseased joints! Of course the enlightened treatment must be pursued from the commencement; and, by great attention to the general condition, by accurate mechanical contrivance, the number of cases now operated on, to say the least, will be very greatly reduced.

I have purposely been concise in these clinical remarks, in order to have time for some general reflections on clinical surgery, supplementary to the Introductory Lecture which I delivered in this theatre last November. I then endeavoured to convey an accurate idea of the relative importance of doctrinal and practical knowledge: they are inseparable; the deepest thinker, the most persevering experimental worker, will be—must be—the wisest and most useful man; and this is true not only in surgery, but in all departments of human knowledge. I essayed to represent the legitimate scope of operative surgery, its liability to be abused, the generally faulty manner of studying it. I expressed regret at the superficial character of too many of the surgical works now published amongst us; and, as one of the most powerful agencies in a deeper examination of things, I directed attention to the great importance of the neglected study of the history of surgery. By this I mean, not a bookworm creeping over dusty old folios, but a living acquaintance with the teachings of the masters of our science and art, in all ages and of all nations; so as to collect in the shortest possible time, and in the most limited space, the largest amount of positive information. Such a work, if once accomplished, would reflect in the present to future generations the accumulated knowledge of past ages, digested, illustrated, and enriched with the results of modern science; and, just in proportion as it would constitute an important contribution to human knowledge, it would tend to ease the sufferings and prolong the duration of human life.

I shall assume you grounded in the preliminary knowledge of structure and function, actuated by a desire to see the truth, and to reason upon it. At the bedside and in the out-patient room, no fact, however simple, should escape observation: in this lecture-room I shall bring to your notice in a condensed form the results of our clinical observation. By seeing, listening, interrogating, touching, experimenting, and reading, without bias, you will learn, and finish by knowing clinical surgery. Be not dismayed at the vastness of the field, or at the comprehensiveness of the programme. It is much easier to do things well than to do them badly—to learn whole truths, than to study by halves. In the pursuit of all knowledge, steps once made in the right direction have never to be retraced. In endeavouring to overcome the difficulties of learning, never forget that the intellectual force essentially multiplies with exercise; I mean, with constant methodical application. Learning acts as leaven to the understanding: constancy and method are the fulcrum and the lever of intellectual power.

Nature must be our study. It has been and is the study of

many great minds, of a swarm of little ones; but even these produce some good. We cannot afford to lose one opportunity, one idea—no, not even one suggestion. Doctrine and practice, brain and hands, must *pari passu* be cultivated. The mind, like the stomach, best digests a varied meal. No good quality can be left without exercise; the best land will not bear fruit unless furrowed by the plough and strewn with seed. Above all, honesty requires to be treasured. All students and observers are not honest. It shall be my aim to endeavour to set you an example of impartial inquiry and candid statement. Ours is to be no one-sided picture—no partial truth. What is wanted is the truth, the whole truth, and nothing but the truth.

With these principles, it is reasonable to hope that we shall be permitted to confirm established truths, to eliminate many errors now prevalent, to establish propositions yet unknown, and comprehensively to take a part in the development of a sound medical philosophy—a rather big word, but a very simple one. Nature is always philosophical; a universal sense pervades it. We have but to follow, to interrogate, and learn—a work of ease, though of toil. It necessitates only one sacrifice—vanity: it requires only a just conception of truth, a firm resolve only to be satisfied with its attainment.

Periscope.

SURGERY.

THE OBJECTS OF SUBCUTANEOUS SURGERY.

MR. WILLIAM ADAMS selected, as the subject of the Oration which he was appointed to deliver at the last anniversary meeting of the Medical Society of London, a sketch of the principles and practice of orthopædic surgery. From that instructive oration, which has lately been published, we make a few extracts.

Mr. Adams expresses his intention to be, to show the practical application of the following law regarding the reparative process, enunciated by John Hunter in his *Treatise on the Blood, Inflammation, and Gunshot Wounds*, in the following words:—

"The injuries done to sound parts I shall divide into two sorts, according to the effects of the accident. The first kind consists of those in which the injured parts do not communicate externally, as concussions of the whole body or of particular parts, strains, bruises, and simple fractures, either of bone or tendon, which form a large division. The second consists of those which have an external communication, comprehending wounds of all kinds, and compound fractures. Bruises which have destroyed the life of the part may be considered as a third division, partaking, at the beginning, of the nature of the first, but finally terminating like the second. The injuries of the first division, in which the parts do not communicate externally, seldom inflame, while those of the second commonly both inflame and suppurate."

After illustrating this subject, Mr. Adams goes on to classify the cases in which subcutaneous operations are indicated.

CLASS I. The operations in the first class are performed subcutaneously, with the sole object of avoiding the inflammation and its consequences, which would necessarily ensue if they were performed by open wounds. Operations are generally performed with this view in important organs or regions in which inflammation would either be dangerous to the life of the individual, or involve loss of function of the part. In this class a very large number of subcutaneous operations are included, of which the following are the principal examples.

1. *The removal of loose cartilages from the joints by subcutaneous incision*, as first performed by Mons. Goyrand, of Aix. There can be no doubt that the subcutaneous method, by which this operation is at present performed, deservedly ranks amongst the greatest improvements of modern surgery, and is the only procedure consistent with the safety of the limb or of the patient.

2. *The division of articular ligaments to facilitate the reduction of old dislocations and the removal of deformities.* These operations have been frequently performed, and prove that the joints may be opened subcutaneously with very little risk.

3. Many of the *operations on the eye* are essentially examples of this class, although the punctures are made through textures differing from the skin: for example, the needle operations for cataract, drilling, etc.; also the operation for artificial pupil; and the introduction of minute scissors in canular sheaths through punctured openings in the cornea, etc. The subconjunctival division of the tendons of the recti muscles for strabismus may be mentioned as a recent improvement now attracting the notice of the profession. This operation was published by M. Guérin, in the year 1840. Mr. C. Brooke, Mr. Critchett, and Mr. Holthouse, are the surgeons who have brought its merits before the profession in this country. Among the advantages, the appearance of the eyes, a diminished tendency to eversion, etc., belong to this improvement.

4. In one category may be included numerous *operations for the evacuation of the fluid contents of cavities and tumours*, either not produced by inflammation, or in which inflammation does not exist at the period of operation; such as the ordinary operations for tapping in abdominal dropsy, in spina bifida, cystic tumours, hydrocele, hydrocephalus, and collections of fluid under a great variety of circumstances.

5. *Some operations for the removal of deformities*, in which the subcutaneous method is adopted simply to avoid inflammation; such as Dieffenbach's treatment of depressed cicatrices by dividing the subjacent adhesions frequently connected with the periosteum. When these depressed cicatrices occur about the face, neck, arms, or fingers, unsightly appearances may be thus removed. To this class also belongs Dieffenbach's method of removing some of the deformities of the nose, such as depressions of the cartilaginous ridge or the alæ, by subcutaneous divisions of the cartilages in some cases, and in others by inserting a small knife into the nostril, and subsequently restoring the form by filling the nostril during the healing.

All these operations are performed subcutaneously, with the object of avoiding inflammation and its consequences.

CLASS II. The operations included in the second class are performed subcutaneously, not only with the object of avoiding inflammation, but also of obtaining a new connective tissue between the divided parts, formed independently of the inflammatory process, and adapted to the restoration or improvement of the functions of the part. This new connective tissue may be either a reproduction or new formation of the normal tissue of the part, when the structure divided is capable of reproduction; or it may be simply a fibro-cellular tissue which may serve the purpose of a new connecting bond of union to the divided structures, when they are not capable of reproduction.

1. The operation in which the above mentioned objects are best accomplished is *subcutaneous tenotomy*. By this operation, a new formation of perfectly formed tendon is obtained, of sufficient length for the purpose required, by organisation of a proper reparative material effused, independently of the inflammatory process. It has been satisfactorily proved by Mr. Paget that neither the effusion of blood nor the accession of inflammation are necessary to this process; but, on the contrary, that both the effusion of blood and inflammation retard this reparative process, and render it less perfect in proportion to the extent to which they exist.

2. *Subcutaneous myotomy* is essentially similar to subcutaneous tenotomy, but differs from it in its results in this respect—that the newly formed connective tissue is unlike the structure which it serves to connect. The principal applications of this operation are the subcutaneous division of the sterno-mastoid muscle for wry-neck; the subcutaneous division of the spinal muscles for lateral curvature of the spine, suggested and still extensively practised by M. Guérin; and the subcutaneous division of strictures of the urethra. The subconjunctival operation for strabismus, which has been already alluded to in the first class, cannot properly be included in the series we are now considering; because, in this operation, it is not the object to obtain elongation of the divided muscle or tendon by the formation of a new connective tissue, but simply to detach the insertion of the muscle from the globe, with the object of gaining a new attachment in a more appropriate place.

CLASS III. The operations included in the third class are performed subcutaneously, with the object of avoiding excessive inflammation, where the occurrence of inflammation cannot with certainty be prevented.

1. *The operation for straightening bent and anchylosed joints* (ligamentous or bony) by what is termed "forced rupture" or "forcible extension". The procedure has been of late revived and recommended by Langenbeck, P. Frank, and others, as preferable to the plan more generally adopted, and now employed at the Orthopædic Hospital; viz., of subcutaneous tenotomy and gradual mechanical extension—but, in Mr. Adams's opinion, is only applicable to cases in which the milder operation has failed. It is certainly not free from danger, especially in bad constitutions. Serious and even fatal

inflammation, rupture of the skin and of the larger vessels, etc., are amongst the accidents which have followed this operation; but the danger is far less than it is in such an operation as resection, where we necessarily have to do with an open wound. In fact, the difference is precisely that which exists between simple and compound fracture. In appropriate cases, the operation is certainly a valuable addition to subcutaneous surgery. It has recently been performed, with great success, in a large number of cases by Mr. Erichsen, Skey, Stanley, and the late Mr. Lonsdale.

2. *The operation for hernia, without opening the sac*, may be included in this class, as its object is to avoid excessive inflammation by excluding the air from the peritoneal cavity.

Class iv. The operations included in the fourth class are performed subcutaneously, with the object of producing a little, and avoiding excessive, inflammation.

1. *Various operative procedures for producing osseous union in fractures which have failed to unite.* The common object of these operations in cases of ununited fracture is to excite a limited amount of inflammation, under which it is known that bony matter is generally thrown out, and firm union obtained. Various methods are adopted to accomplish this object; such as—(*a*) The introduction of a seton passed deeply between the separated ends of the bone; (*b*) The introduction of ivory pegs into the bone close to the fractured surfaces. This practice has been of late adopted by Mr. Stanley and other surgeons with very great success; (*c*) A more perfectly subcutaneous operation, performed by introducing a tenotomy knife, and completely detaching the soft tissues from the fractured surfaces which are afterwards brought into apposition. The last-named operation has frequently been successful, and, as a less severe method than the preceding, may be adopted first. It has recently been applied with success, by M. Malgaigne, to the ununited fracture of the patella, which has hitherto been considered quite irremediable. In cases of fracture of the patella with wide separation, Malgaigne has proposed to denude the fractured surfaces subcutaneously, and draw the fragments together by means of a steel hook and screw apparatus of his own invention, such as he applies to cases of recent fracture of the patella where exact apposition cannot be otherwise obtained. These cases of wide separation are supposed to be due to elongated ligamentous union; but when describing the preparations in St. Thomas's Museum, and more especially from examining the specimen figured by Sir A. Cooper, in his work on *Dislocations and Fractures*, Mr. Adams arrived at the conclusion, that in such cases no ligamentous union had ever taken place; that the reparative process had been entirely arrested; and that the fragments were merely connected by the fascia and aponeurotic structures over the knee-joint, in a thickened condition.

2. With the object of producing a little, and avoiding excessive, inflammation, various operations are performed for the *obliteration of serous cavities by the introduction of foreign substances;* such as the injection of iodine and a variety of irritating liquids into the cavities of hydroceles, ovarian tumours, etc. In this category, also, may be included the operation for the cure of bursæ by free subcutaneous incisions. There are some bursæ of long standing which cannot be ruptured by a blow; and when situated over joints—the wrist, for example—the introduction of a seton is dangerous. The operation for the radical cure of reducible inguinal hernia, devised and practised with so much success by Professor Wützer, of Bonn, also belongs to this class. The object is to invaginate the hernial sac through the length of the inguinal canal by pushing a portion of the skin into it. The inverted skin is retained in the canal by a wooden plug, and the obliteration of the canal effected by a needle passed from within outwards through the integument, and also by the continuance of mechanical pressure.

3. *Various subcutaneous operations for the cure of varicose veins;* such as—*a.* The subcutaneous division of the vein, proposed by Sir B. Brodie, and published in the year 1817 in the *Medico-Chirurgical Transactions; b.* The cure of varicose veins by introducing a pin beneath the vein, and passing a twisted suture across the ends of the pin externally, so as to compress the vein between the pin and the suture, and obliterate it by inflammation; *c.* The subcutaneous ligature for the cure of varicocele as practised by M. Ricord.

4. *Subcutaneous operations for the cure of nævi*, by exciting a limited amount of inflammation, are also examples of this class; such as—*a.* The tracking of nævi by single threads; *b.* The injection of irritating substances; *c.* The free subcutaneous incisions through the base and substance of the nævus, with the view of causing slight inflammation, effusion, and obliteration of its vessels, recommended by the late Dr. Marshall Hall.

5. *The obliteration of fistulous canals by the subcutaneous ligature*, as proposed and successfully practised by Dieffenbach.

Class v. The operations included in the fifth and last class are performed subcutaneously, with the object either of arresting the inflammatory process, or of averting some of its troublesome and unfavourable consequences; such as the painful tension of certain structures, the formation of ulcerated external openings, and the extreme distension of cavities by the contained effusion.

1. *The subcutaneous incision of inflamed periosteum*, an operation recommended by Mr. Fergusson to relieve the pain and tension, and diminish the inflammation, of this structure.

2. Mr. Milton applies the subcutaneous method of opening abscesses, to the *treatment of bubo.* When suppuration is established, Mr. Milton makes a puncture by passing a grooved needle through the healthy skin beyond the inflamed integument. Pus escapes; moderately firm pressure is then applied; and rest enforced. Frequently no further interference is required. A second puncture may be necessary, and very rarely a third. By this plan all the disadvantages of an open wound are got rid of; a cicatrix is avoided; poultices, etc., are dispensed with; and the risk of phagedena, hæmorrhage, and sinuses, Mr. Milton says, is entirely averted.

3. *The subcutaneous method of opening abscesses, including psoas and lumbar abscess;* also the evacuation of the inflammatory effusion in serous cavities, as in pleuritis and pericarditis, and in the joint-cavities. In these operations we have every gradation between the valvular opening proposed by Abernethy, and the true subcutaneous puncture.

Mr. Adams commonly lets out the fluid from distended joints—most frequently the knee and hip-joints—at a comparatively early stage, by passing a long tenotomy knife under the skin and opening the joint at least an inch from the cutaneous puncture. He does not withdraw the knife till all the fluid has escaped, but uses it as a conductor for the fluid, which, even if curdy or containing shreds of lymph, will escape along the knife, if the latter be occasionally twisted and manipulated. A pad of lint and a firm bandage are then applied. By this operation great relief is afforded to the patient, and long-continued poulticing avoided. The wound generally heals by the third day, without a blush of inflammation; and if the joint refills, the same plan must be repeated. Sometimes adhesion fails, when pus continues to escape through the canal, and a fistulous opening is established; but then the tedious process of pointing and spontaneous opening, with the poulticing treatment, is avoided. He has not seen any inflammation excited by this subcutaneous puncture. The plan is equally applicable to psoas and lumbar abscess.

Closely allied to the true subcutaneous operations which we have been considering, may be mentioned a series of operations which hold an intermediate position between subcutaneous and open wounds—operations which cannot be performed subcutaneously, but are performed by open wound in a manner so as to approach the subcutaneous method, and with the view of combining as many of the advantages of this plan as possible. They may be described as *open wounds quickly closed.* The first principle of treatment in all incised and some lacerated wounds, is to bring the surfaces in contact, and thus prevent the *continued exposure to the air.* By so doing, severe inflammation, and especially suppuration, is commonly prevented; generally, only a very slight amount of inflammation follows, and adhesion is produced. Compound fractures are sometimes brought into conditions as favourable as simple fractures by the same means. And the recommendation of Stromeyer to treat the compound fractures of the skull with depressed bone in the same way, instead of trephining, has already been noticed.

There are some surgical operations, necessarily performed by open wound, in which the security of the patient, and the favourable termination of the case, depend very much upon the short time which the divided parts are exposed to the air.

1. The operation for *extraction of cataract*, in which the large open wound in the cornea is immediately closed.

2. Another operation belonging to this intermediate class between open and subcutaneous wounds, is the improved method of *extirpating the globe of the eye*, now generally adopted at the Moorfields Ophthalmic Hospital. Instead of dissecting out the contents of the orbit, as in the old operation, and leaving a large open wound, necessarily followed by

suppurative inflammation, which has frequently proved fatal, Mr. Critchett removes the eye-ball alone, through a circular aperture in the conjunctiva, close to the cornea. The muscles and optic nerve are easily detached from the globe.

The operations for the extraction of cataract, and the removal of the globe of the eye, may then be taken as examples of a class of operations, the favourable termination of which very much depends upon the short time which the divided parts are exposed to the air, and may therefore be arranged as an intermediate class between subcutaneous and open wounds —open wounds quickly closed.

STRICTURE OF THE PHARYNX: ŒSOPHAGOTOMY.

THE following case is reported by Dr. G. R. BALLINGALL in the *Transactions of the Medical and Physical Society of Bombay* for the years 1855 and 1856:—

R. C., a Parsee female, aged 44, was admitted into the Jamsetjee Jejeebhoy Hospital on June 12, 1856, in a state of extreme emaciation from inability to swallow. She stated that the difficulty of deglutition was first perceived about five months previously, and had gradually increased, so that latterly she had been unable to take even liquid food. On making her try to swallow some water it was almost immediately returned, none appearing to pass down into the stomach. On examination of the throat, the opening of the larynx could be distinctly felt, but the lower part of the pharynx seemed obliterated, its place being occupied by an induration, the boundaries of which could not be ascertained. Externally no tumour was apparent, but the larynx seemed more fixed than usual. There was occasional hawking, with ejection of some frothy mucus, unmixed with pus or blood. Respiration was easy, and she did not complain of pain of the throat. Several unsuccessful attempts were made to pass elastic tubes of various sizes; and as it was evident that death must soon ensue, it was proposed to open the œsophagus, below the obstruction, for the purpose of feeding her. The case was fully explained, and the choice left entirely to the patient; and as she seemed anxious that something should be done, the operation was performed on June 14th. By careful dissection the œsophagus was reached, and opened on the left side of the neck; at its lower part a large gum elastic tube was inserted, and retained by a tape round the neck. Through this an elastic catheter was easily passed into the stomach and food injected. Scarcely any constitutional disturbance followed the operation; the wound progressed favourably, and the tube seemed to cause little irritation. Food was injected several times daily, and for some time she improved a little, but afterwards again began to lose flesh, and she died from exhaustion on the 16th of July, some days after her discharge from the hospital.

REMARKS. Dr. Ballingall says that he has placed this case on record from the partial success which followed an operation which, so far as he knows, has not been previously proposed or executed. From the total inability to swallow, it was evident that death must have ensued in a few days if nothing were done for her relief; and the fatal result, a month afterwards, did not appear to be in any way dependent on the operation. What the nature of the affection was it is impossible to say; as, from the patient's being a Parsee, an examination could not be obtained. Judging from the rapidity of the growth and the age of the female, it was most probably cancerous, but there was no purulent or bloody discharge indicating the stage of ulceration having been reached.

FATAL HÆMORRHAGE FROM A STUMP AFTER AMPUTATION.

AT the meeting of the Pathological Society of Dublin on November 29th, 1857, Mr. SMYLY presented the stump of a man who died from hæmorrhage, after amputation above the knee. The limb was removed on account of a scrofulous affection of the leg, of nine years duration. The patient was a man of intemperate habits, and became jaundiced a few days after the operation. During the operation there was not much bleeding; and all went on well for about eighteen hours, when there was considerable hæmorrhage, and a vessel of some size, not previously tied, had to be secured. There was also bleeding from the sawn portion of the bone, but this was checked by pledgets of lint steeped in turpentine. The next day the stump was rather sloughy; and on the eighth day the ligatures were all washed away with the discharge at the dressing, but there was no bleeding at that time. On the morning of the ninth day, however, a stream of blood issued in a jet from the stump, and was projected beyond the foot of the bed. The resident pupil, who was at once called, immediately controlled the hæmorrhage, and sent for Mr. Smyly; when he arrived, however, the bleeding had entirely ceased. The stump bled again the following day. It was now considered whether, under the circumstances, it would be prudent to cut down upon the artery higher up, and secure it. This, however, was objected to, and the atery was tied in the stump. For five days after this there was no more bleeding, but at the end of that time it recurred. During this period the patient was much reduced by diarrhœa, which, with vomiting, continued with more or less severity throughout his illness. The hæmorrhage was sometimes at one part of the stump, and sometimes at another. The patient gradually sank, and died on the thirty-first day after the operation. On examining the stump after death, it was observed that no effort whatever had been made by nature towards the formation of a coagulum, the cut extremity of every vessel being completely pervious. The liver was large and very heavy. One kidney had a small abscess in its cortical structure. (*Dublin Hospital Gazette*, January 1st, 1858.)

LETTERS AND COMMUNICATIONS.

Letters or communications for the JOURNAL should be addressed to Dr. WYNTER, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the JOURNAL, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

British Medical Journal.

SATURDAY, JANUARY 30TH, 1858.

PHYSICAL EDUCATION.

How many of the good qualities of Englishmen do we owe to our love of games and field sports! How many of the splendid empires we have founded in every quarter of the globe have had their root and spring in the tussles at football at Eton, the annual boat-races on the Thames, or the cricket matches on the thousand greens and heaths throughout broad England! The dominant race of the world—that race which has already seized upon every unoccupied corner of the world, and mastered the most thickly peopled—is dominant because it is great and masculine, because its tastes and habits lead to self-reliance, and because its breeding leads to the development of endurance, courage, and pluck. We have been so accustomed to the habits that foster these noble qualities that we do not, we believe, thoroughly appreciate them—nay, we do not perceive that a current of opinion has set in among a certain small minority amongst us which, if carried to its full extent, would do much to unman the Englishman and to degrade his physical nature to the continental standard. We have only to look across the Atlantic to see how easily the healthy, jolly, muscular Englishman can degenerate into the sallow, dyspeptic, lanthern-jawed Yankee. No doubt the influence of climate has very much to do with this falling-off of the race: at the same time, it cannot be denied that a very large share of this deteriorating process is due to the false habits of our descendants themselves. A New England farmer is ruddy enough and stout enough, but your citizen of New York is so different a creature, that we scarcely can recognise him as of the same race. The *Philadelphia Evening Journal*, in an admirable article upon the sorry appearance of the American citizen, thus draws a typical portrait.

"The incipient man (we take an extreme case) is a thin, frail creature. His face is sharp and sallow, and has a bleared and bilious appearance. His back can be spanned with both

hands, and there will be some hand to spare. The muscles of his arm consist of soft, loose lumps, which give to the touch; his chest, even with the aid of stiff-starched dickey and bulging vest, don't protrude perceptibly, and never makes the mildest attempt at a heave; his legs are matters to be implicitly believed in without any solid proof as to their reality. In fact, the last named members have become so appallingly lean and same-all-the-way-up, that the tailors have established a wide, flappy style of integuments, into which they slip and are lost, the external effect on the casual observer being agreeably deceptive."

Such is the picture drawn by one of themselves of an American man! Out of the solid Englishman, how comes it that the product is this wretched scarecrow? The editor himself gives the reply—the body is wholly neglected for the mind; there is no such thing in the States as manly games. If you were to ask an American "to take a constitutional," he would stare with wonder; the Yankee schoolboy would think the English lad mad to strain so at foot-ball, or to try his wind in the foot-race or the boat-match. The fairer half of creation across the "herring-pond" have still further degenerated from the standard of their mothers of England—flat-breasted, round-backed, and "rotten before they are ripe", to use a vulgar but forcible expression, instead of being, as was said of Michael Angelo's women, "models of generation", they only seem capable of passing on a fast declining race. The breezy ride upon the heath, the long country walk, the natural attitudes of the maidens of the old country, are unknown to them, and we see the result; they are old women at forty, with black teeth and withered frames. The Americans are beginning to perceive the perilous condition into which they have been brought, and are trying to reform themselves. Our games are finding their way into the States; cricket is springing up in the neighbourhood of the big towns, and there is a loud call for a systematic education of the body.

Whilst brother Jonathan has thus began to awaken to a sense of his danger, we fear there is a tendency in this country to fall off from our good old ways. We have before lamented the abandonment of the annual cricket match once played in London by the Etonians; and now we are given to understand that boating is considered injurious to the rising generation. We have heard it stated by University authorities, that the majority of the boats' crews that pull in the Oxford and Cambridge match are either ruptured or affected with aneurisms! That a poor weakling may overstrain himself here and there in these trials of strength and endurance, we do not doubt; but to deny this splendid exercise to the youths of our great schools on account of these exceptional break downs, would be as unreasonable as to prohibit the use of wine or spirits because "Sloggins" gets drunk. The universities and the great public schools, as we have before said, set the fashion of games and sports to the youth of this country; and we think that medical men should express themselves heartily as to the wrong direction these schools are now taking in these matters. With respect to the more manly sports of the people, there cannot be a doubt that the numerous Acts of Enclosure have powerfully affected them for the worse. The humane tendencies of the age have banished all the rougher sports of our ancestors. Pugilism, bull-baiting, bear-baiting, dog-fighting, cock-fighting, have justly gone; but what have we in their stead? Physical force is ignored. A boy must not be whipped at school if he has done wrong; but the enlightened philanthropy of the present day substitutes an imposition which gives him a headache! With all our respect for the philanthropy of the age, we cannot help thinking that, as regards physical education, it has been content to destroy without building up—to push the head at the expense of the thews and sinews; and to make a clever, sharp lad, instead of a strong, enduring, and self-reliant man. Woe be to England when these qualities shall have departed from her sons! They may be adepts in all the "ologies"; but they will be no longer the bold, healthy, *out-of-door Englishmen*, whose good sense springs from their sound health, and whose love of adventure and power over men are learned in their contests with their fellows, and in the vigorous pursuit of all health-giving exercises.

THE WEEK.

An attempt has been made to settle the contest in the Birmingham hospital, and has, unhappily failed for the present. On Monday last, a meeting of the council was held, at which the following recommendation was read by Mr. Sands Cox:—

"We, the undersigned, hereby recommend that Mr. Sampson Gamgee and Mr. J. F. West be appointed surgeons to the Queen's Hospital from this date upon equal terms. That all previous proceedings relating to this appointment be superseded and rendered null and void by this recommendation. That this arrangement, proposed under extraordinary circumstances, is neither to be construed into a precedent hereafter, nor to be regarded as an abrogation of any of the laws of the Queen's College and Hospital. (Signed,) T. Upfill, treasurer, W. S. Cox, Dean of Faculty, F. I. Welch, S. Haines, J. Boucher, G. Taylor, E. T. Cox, C. Ingleby, T. S. James, E. Armfield, T. Bagnall, J. P. Heslop, G. B. Knowles, J. E. Clift, S. Hemming."

Mr. Welch then proposed the following resolution, which was seconded by Dr. Heslop:—

"That in the opinion of this council, Mr. West and Mr. Gamgee be declared surgeons to the Queen's Hospital on equal terms as to their rank and practice; and in case they both remain in the hospital until one of them be entitled to the senior surgeonship, that the claims of each to seniority be left in the same position in which they now stand, and subject to the present laws of the college and hospital."

Mr. Lucy, a member of the council, proposed as an amendment,—

"That the resolution of the council of Queen's College, on the 12th November last, rescinding the appointment of Mr. West to the office of surgeon to the Queen's Hospital, and substituting the name of Mr. Gamgee as such surgeon, be and is hereby rescinded."

The amendment was seconded by the Rev. Dr. Miller. On a shew of hands being taken, Mr. Lucy's amendment was lost by a majority of 8 to 6; and the original motion was lost by the casting vote of the mayor, who occupied the chair. Hence no practical result was arrived at: and the affair was left in a state of confusion.

We are much disappointed at the result, or rather, non-result of this meeting, having been led to entertain a hope that an amicable settlement of the question was at hand. The real fact seems to be, that some members of the council (and Mr. Lucy avowed as much for his own part) claim precedence for Mr. West; in other words, desire to give him the reversion of the senior surgeonship, with its concomitant honours and responsibilities. On this point, justice and common sense can lead but to one decision—to give the first chance of the foremost post to the man who has laboured longest and hardest in the cause of surgical science and practice, and whose antecedents

point to him as likely to be the first to be able to fill with most honour the high professional station aimed at. May justice and common sense guide the deliberations of the Reverend Dr. Miller, his Worship the Mayor of Birmingham, Mr. Lucy, and their colleagues in the council of Queen's College!

In the discussion on Monday, one fact came out, which we regret, but must in honesty not suppress—that Dr. Birt Davies had asked a member of the council to vote for his (Dr. Davies') son. It is unfortunate that Dr. Davies so far allowed his paternal feelings to prevail over his sense of duty; notwithstanding that he seems to have been patriotic enough, at the meeting of the professors, to allow his son's name to be withdrawn from the list of candidates. But the merits of the question at issue are not in the least affected by this disclosure. The Queen's Hospital is not such a paltry institution, as to be unaffected by the sacrifice of prominent merit to any other claim on the part of those who seek office within its walls. On the principle of "the best man foremost" its elections must be conducted. Mr. Sands Cox and his fellow-thinkers feel this, and with honourable perseverance act accordingly. If they cannot succeed fully, the best compromise is that contained in the resolution proposed by Mr. Welch, which we should, for the sake of peace, be glad to see adopted; but then the question of seniority must be left entirely open for the present—otherwise the treaty of peace will be an utter mockery.

The new Regius Professor of Medicine in the University of Oxford has just issued a short pamphlet on the *Teaching of Physiology in the Higher Schools*. It appears that during the past term physiology was taught, as an experiment, in the Grammar School of Magdalen College. At the end of term, an examination was held; and the papers were forwarded to Dr. Acland for inspection, who has expressed his opinions in the pamphlet to which we refer, and which consists of replies to certain questions submitted to him by the teacher of physiology in the Magdalen College School. He argues strongly, and in detail, in favour of the popular teaching of this science. Here are one or two of his reasons, the validity of which is evident.

"General physiological questions will in a few years become so universally understood, that much ordinary literature will be unintelligible to those wholly unacquainted with them. Advanced physiological problems are already discussed in reviews, in this and other countries. Sanitary inquiries of all kinds come now within the range of town councils, vestries, guardians, police, registrars, and officials in every class of society. *Cæteris paribus*, therefore, one versed in such subjects, or intelligently grounded in them, is better prepared for office than one who is not.

"The standard of medical knowledge and medical practice will be raised in proportion to the diffusion of physiological knowledge among the general public. I look, therefore, to the increase of a general knowledge of physiology (and of hygiene, which it implies) as one of the greatest benefits which will accrue through science to the temporal interests of mankind. Every form of quackery and imposture in medicine will in this way, and in this way only, be discouraged. It is, in great part, on this ground—on the ground of the future benefit to the people through the dissemination of a true perception of the *groundwork* of practical medicine—that I have laboured for many years to promote physiological knowledge in this University, among students holding whatever rank, and destined for whatever occupation."

It is a good sign when we find a man in such a position as that which Dr. Acland occupies thus expressing himself. He might be indifferent, or positively obstructive; but in his present course he does honour to his University.

Association Intelligence.

SOUTH-EASTERN BRANCH:

SOCIAL AND SCIENTIFIC MEETINGS OF THE MEMBERS RESIDENT IN ROCHESTER, MAIDSTONE, GRAVESEND, AND THEIR VICINITIES.

SCIENTIFIC and social meetings of members of the South-Eastern Branch resident in Rochester, Maidstone, Gravesend, and their vicinities, will be held on the under mentioned days:

Friday, February 12th, 1858, at 4.30 P.M., at the Guildhall, Maidstone.

Friday, March 12th, 1858, at 3.30 P.M., at the Guildhall, Gravesend.

The members resident in this district will be gratified by the attendance and assistance of any of the members of the British Medical Association.

All members of the South-Eastern Branch may attend these meetings, and be at liberty to introduce any professional friends.

Any member of the profession may, by permission of the Chairman, attend one of these meetings, subject to the rules of the Parent Society.

JAMES DULVEY, *Local Sec. pro tem.*

Brompton, Chatham:

Reports of Societies.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, DECEMBER 7TH, 1858.

B. G. BABINGTON, M.D., F.R.S., in the Chair.

ON THE DISTRICT MORTALITY OF LONDON. BY WM. ODLING, M.D.

THE author calculated logarithmically the annual rate of increase of population in each of the thirty-six metropolitan districts, between the census of 1841 and that of 1851, according to the equation $r = n\sqrt{\frac{m}{p}}$; and, presuming the same rate to have continued since 1851, ascertained the mean population of each district in the year 1856. The mean annual rate of increase was greatest in Islington, where it amounted to 5·52 per cent., and least in St. James's, Westminster, where it was estimated at 0·27 per cent. The mean of the entire metropolis was 1·94 per cent. The calculated population of St. Pancras in 1856 amounted to 189,337, and was greater than that of any other district, while the population of Hampstead amounted only to 13,000, and was less than that of any other district. The density of population was greatest in the Strand district, which had 258 persons to an acre, and least in Lewisham, which had only 2·4 persons to an acre. The lowest mortality occurred in Camberwell, Lambeth, and Clerkenwell, where the deaths per 1000 were 18·57, 18·71, 18·97 respectively; the highest in St. Olave, Southwark, Whitechapel, and Greenwich, where the death-rates per 1000 were respectively 55·25, 26·60, and 25·58. The extremely high death-rate of St. Olave, Southwark, is evidently due to its containing Guy's and St. Thomas's Hospitals. The mean mortality of the metropolis was represented by a death-rate of 21·83 per 1000. From an examination of the entire results, it appeared that no district having a high reputation for salubrity had a high death-rate, but that several districts, having had bad reputations, enjoyed a comparatively low mortality, as instanced particularly by Lambeth, Bethnal-green, St. Luke's, and Bermondsey. The death-rate of any district did not appear to have any specific relation with its elevation or density of population. No calculation was made of the mean individual wealth of the residents in each district, and consequently no comparison of wealth with mortality; but it was observable that the poor parishes of Lambeth, Clerkenwell, Bethnal-green, and St. Luke, had lower death-rates than the rich neighbourhoods St. George, Hanover Square, St. Marylebone, and St. Martin's in the Fields. Dr. Odling also made calculations of the death-rates from epidemic disease, and of the proportions which these death-rates bore to the general death-rates. In his own parish of Lambeth, he ascertained that the entire death-rate varied from 12·33 per 1000 in the Brixton sub-district, comprising 17,506 inhabitants, to 21·69 in Lambeth church first sub-district, comprising 18,390; and that in his eight sub-districts the total rate of mortality increased precisely as the proportion which the infant mortality bore to the entire mortality increased.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 12th, 1858.

Sir C. Locock, Bart., M.D., President, in the Chair.

SOME POINTS IN THE PATHOLOGY AND MORBID ANATOMY OF GLAUCOMA. BY J. W. HULKE, ESQ.

The ophthalmoscopic examination of many cases of glaucoma, and the dissections of several eyes affected with this disease, furnished the facts detailed in this paper. Two chief forms of glaucoma have been long recognised—the acute and chronic; but a large number of cases occupy an intermediate position. The ophthalmoscopic signs of acute glaucoma are: a dilated state of the retinal veins, often tortuous and turgid with blood; small ecchymoses scattered over the surface of the retina; occasionally small blood-clots in the vitreous humour; pulsation in the arteria centralis retinæ; and an excavated state of the optic papilla. These two last signs were, the author believed, first noticed by Gräfe, who insists upon their being pathognomonic of this disease. Although in acute glaucoma the urgent symptoms often set in very suddenly, yet in a large number of cases the outbreak has been foreshadowed by a train of premonitory symptoms. These are: occasional dimness of sight, often towards evening, shooting pains in the eyeball, muscæ, and a gradual diminution of the field of vision. Gräfe has drawn particular attention to this last point. The outbreak may be followed by a remission, only a temporary improvement, for fresh paroxysms will occur, and blindness inevitably result. In the advanced stages sclerotic staphylomata are apt to occur, mostly behind the insertions of the recti tendons. Chronic glaucoma differs from the acute chiefly by the insidiousness of its course, which is unmarked by those violent symptoms which characterise the outbreak of the acute form. It is quite as intractable as the acute form. The retinal veins are turgid, and the retina is sprinkled with hæmorrhagic spots, just as in the acute form. Sometimes in the same person one eye is attacked by acute, the other by chronic glaucoma. These facts favour the supposition that acute and chronic glaucoma are only different forms of the same disease. Gräfe has called attention to a peculiar form of amaurosis, in which the optic papilla is excavated. This affection must be carefully distinguished from glaucoma, which may be done by observing that the globe is not tense, and the other signs of hyperæmia are also absent.

The small blood-spots which are sprinkled over the inner surface of the retina are small spots of capillary hæmorrhage. This condition was first recognised in glaucoma, by actual dissection, by Mr. Bowman. The bleeding proceeds from the capillaries in the inner layers of the retina, and the blood either spreads laterally amongst the elementary structures of the retina, or bursting through the hyaloid membrane, it forms small clots in the vitreous humour. The retinal capillaries are irregularly dilated and studded with small fusiform and globular enlargements—little aneurismal pouches. These dilatations do not occur on the large vessels. The pouches and the vessels communicating with them are usually crammed full with blood-corpuscles. In the hæmorrhagic spots the retinal tissues are infiltrated with blood-discs, which have escaped by the bursting of some of these little aneurismal pouches. Excepting the changes described above, the retinal capillaries have a healthy appearance, and do not present traces of fatty or atheromatous degeneration. The coats of the arteries are hypertrophied. The vitreous humour sometimes has a yellow tinge, which is derived from the colouring matter of the effused blood. It often contains blood-discs and delicate fibrinous webs; and sometimes also small blood-clots, which can be clearly seen with the unaided eye. The vitreous humour has a very remarkable degree of consistence, and does not quickly flow off when the eyeball is cut across. Viewed by transmitted light, the glaucomatous lens has a yellow tint like the vitreous humour, which is probably acquired from the same source—viz., the colouring matter of the effused blood. The relations of the lens and the vitreous humour favour this supposition. In none of the dissections were any morbid changes found in the choroid, unless when staphylomata were present. Corresponding with the staphylomata, the choroid, retina, and sclerotica, preserve their natural relations to one another, and are not separated by any effusions. The choroidal pigment is irregularly distributed; the tissues seem opened out. The subsequent changes in the retina and choroid, in the advanced stages of the disease, have an atrophic character. The dilated retinal capillaries and their contents have been found dark and granular, in a state of fatty degeneration; and the contiguous parts of the retina participate in these changes. The symptoms, the ophthalmoscopic signs, and the structural changes which take place early in the disease, all point to a state of great vascular excitement in the retina, and a greatly increased internal pressure upon the walls of the globe. It is this pressure which causes the blindness in the early stage of the disease, and the fixed dilated pupil; for, when the pressure is relieved by operation, sight and mobility of the pupil return.

Mr. Bowman remarked that the paper before the Society was a strong illustration of the advance which had been made of late years in our knowledge and treatment of diseases of the eye, more particularly of those which were deep-seated. Microscopic examination had done much to elucidate the morbid anatomy of these diseases, but this would have availed little in the deeper-seated structures, unless it had been assisted by the definition of the structures immediately after removal. Mr. Critchett and himself had, within the last few years, given these opportunities by the plan they had pursued of excising globes affected with chronic and excessive pain, more or less injuring the other eye, and making the patient's life most uncomfortable. This plan of excision was now known to be a simple and safe proceeding; and, under chloroform, could be effected without pain. Relief followed immediately on the operation; and in a few days an artificial eye could be worn. Mr. Bowman then spoke at some length on the great advantages which had been conferred on ophthalmic surgery by the invention of the ophthalmoscope, by bringing under immediate and distinct observation signs and symptoms which were previously most indistinct, or altogether matters of conjecture. Mr. Bowman then alluded to the advance made by the Germans in the use of this instrument, but more particularly by Professor Gräfe, of Berlin, to whose work *On Glaucoma* Mr. Hulke had referred. Professor Gräfe had detected all the changes which took place in this remarkable disease. He had proved that there was a gradually increasing pressure within the organ, dependent upon an increased afflux of blood into the vessels of the interior. In addition to this, various secondary changes took place: as enlargement of the veins on the surface of the eye, and an excavated state of the entrance of the optic nerve, erroneously denominated "optic papilla". The author of the paper had also alluded to the pulsation of the artery of the retina, which, if absent in a case of glaucoma, could be produced by the slightest pressure, and was regarded by Dr. Gräfe as pathognomonic of the disease. These conditions together gave unmistakable evidence of the nature of the disease, and pointed to the mode of treatment recommended by Dr. Gräfe, and which had been fully borne out by the practice pursued at the Moorfields Hospital. This mode consisted in the excision of a portion of the iris in a particular way in acute or chronic glaucoma, but especially in the acute form. A diminution of the pressure resulted almost from the first, succeeded by a relief to all the symptoms, even to an improvement of the vision, which, under great pressure, might for a time have been obstructed. Dr. Gräfe had proved that the loss of sight in the early stage of glaucoma was not dependent on any change taking place primarily in the retina, but on pressure exerted by the vessels. If this cause were removed, the retina regained its power, just as when pressure were removed from the brain, its functions, which had for a time been suspended, might be restored. Mr. Bowman then drew an analogy between the above condition of the eye in cases of glaucoma and the condition of the brain in cases of pressure.

Mr. Critchett remarked that he thought Englishmen were in advance of the Germans, in showing how beautifully the ophthalmoscope and the microscope were illustrative and confirmatory of each other. When the eye had been the seat of serious disease, and was useless as an organ, causing irritation and threatening the safety of the other eye, it was certainly the best practice to remove the globe; and the introduction and carrying out of that principle had enabled the author to make a step in advance of the continental surgeons. A most important advance had thus been made in reference to the scientific investigation of diseases of the eye, by the plan pursued by the author of the paper. It was the first step in a special form of investigation; and he (Mr. Critchett) entertained confident hopes as to the results of such a course of proceeding.

Mr. Haynes Walton, in allusion to "sympathetic irritation of the eye", said he had long recognised the principle of checking the effect of one eye over the other, by the reduction of the action in the originally diseased organ. The practice had been instituted at the Central London Ophthalmic Hospital, and

adopted by his colleagues as well as himself. Indeed, he believed that he had been the first in England to draw public attention to the matter, through the medical journals. His method of execution was, however, different, as a rule, from that which had been just propounded. He did not extirpate the eyeball. He found he could obtain the desired effect by reducing it, by taking away the front of it, whereby the diseased action was overcome. The objection raised to this method was the bleeding which might ensue; but if the operation were properly executed, there was no drawback on this account, as all hæmorrhage could be arrested by operating quickly, and at once placing a compress of lint or cotton wool over the eye, and applying a bandage. The advantages of this method were these:—the preservation of a large portion of the eye for the sake of appearance, as the face was far less deformed than when the whole of the eyeball was taken away, and the existence of a stump, on which an artificial eye can more conveniently be placed, and also have imparted to it the action of the recti muscles. He had met with some instances in which it was requisite to take away the entire eye—for example, when there was much disease in all of the tunics. Again, in staphyloma of the sclerotica, when there was no reasonable hope of being able to save a serviceable stump, he had removed the entire mass. He was very much pleased with the paper that had been read. It rendered obsolete all that had been written by our ophthalmic authorities. Heretofore it had been taught that the lens was the primary seat of glaucoma, and in certain stages the removal of this body was recommended as a means of cure. With regard to the ophthalmoscope, he (Mr. Walton) thought it but right to give the testimony of his experience, and he must say that he had found it a most valuable means in assisting diagnosis.

Mr. BOWMAN should regret if it went forth that the system of extirpation of the eye was always followed at the Hospital in Moorfields. When the disease was confined to the anterior part of the eye, the posterior portion being comparatively sound and not gorged with blood, a part of the globe only need be abcised. If, however, the disease was situated chiefly behind, and the vessels of the deeper tissues were enlarged, complete excision was, he considered, by far the best for the patient.

MEDICAL SOCIETY OF LONDON.

SATURDAY, JANUARY 16TH, 1858.

W. C. DENDY, Esq., in the Chair.

ON THE TREATMENT OF THE INFLAMMATORY DISEASES OF THE RESPIRATORY ORGANS. BY R. H. SEMPLE, M.D.

The author commenced by observing that the treatment of pneumonia was formerly supposed to consist almost solely and essentially in the abstraction of blood from the arm; but that in the present day, not only in this, but in other inflammatory diseases, the use of the lancet was but seldom resorted to, and by many practitioners it was abandoned altogether. It became a question whether this great alteration in treatment was due to the varying fashion of the day, or to the fact that disease had, in fact, altered its type, and therefore required very different treatment from that formerly adopted. Dr. SEMPLE was inclined to believe that disease had really altered its type, for he and others had, at the commencement of their professional career, bled patients very constantly, and certainly with good results, but at present the operation of venesection was not so much required. He had been for the last three years connected with the Northern Dispensary, where all the usual forms of disease presented themselves to his notice, and he had recommended bleeding only once during the whole of that period in that institution. The fact appeared to be, that the sthenic inflammatory diseases were dying out amongst us, and that asthenic complaints were taking their place. The cholera which visited this country in 1832 was certainly a disease of depression, and this was immediately followed by the influenza, a disease of the same depressing class, and, like it, requiring a tonic plan of treatment. Since the date referred to, neuralgia, also a disease of depression, had become almost epidemic; carbuncles and carbuncular boils were at present decidedly so; and Bright's disease, the disease of the supra-renal capsules giving rise to the bronzed skin, and the disorders classed under the head of fatty degeneration, were all much more prevalent than formerly, even if we do not admit them to be new diseases. In fact, it now became a question whether bleeding should ever be practised at all, and he (Dr. Semple) was as cautious in ordering a patient to be bled as a surgeon would be in deciding upon the amputation of a limb. Nevertheless, although the cases met with in practice required in general the adoption of tonic and stimulating treatment, it was by no means proved that all forms of disease were characterised by depression; for cases of a sthenic type still presented themselves, and demanded the application of antiphlogistic measures. The remarks made upon the treatment of inflammatory diseases in general were particularly applicable to those of the respiratory organs, which are essential to life, and the inflammations of which require the most prompt and judicious medication; still it was impossible that any stereotyped rules could be laid down for the treatment of these affections, which may present the most opposite therapeutical indications.

The author then related the case of a lady in whom the treatment by bleeding, calomel, and tartrate of antimony was adopted for an acute inflammation of the larynx and trachea, extending to the bronchial tubes, substance of the lungs, and pleuræ. This treatment not having at first produced a well-marked effect, the antiphlogistic plan was changed for a stimulating one, and carbonate of ammonia and brandy were employed while the acute symptoms still continued. The result was, that the patient became decidedly worse, and appeared to be on the point of death by suffocation; but on again changing the plan, and resorting to bleeding, low diet, and tartrate of antimony, the disease gradually subsided, and the patient, who is now alive and well, was restored to perfect health, without any trace whatever of the previous illness.

Dr. Semple wished that it should be understood that he had no dogmatic views to offer upon the treatment of the inflammatory diseases of the respiratory organs. He could not advocate indiscriminately large bleedings, profuse mercurialisation, and repeated doses of tartar-emetic; nor, on the other hand, could he approve the universal adoption of the plan of stimulating such cases by brandy and carbonate of ammonia; and it was difficult to determine which would be the greater error of the two. He believed that many cases of pure sthenic inflammation still presented themselves in practice, although they were by no means so common as they formerly were; and in such instances the abstraction of blood, and the administration of mercury, of the alkalies and tartar-emetic, will effect a cure. But there are in the present day a great number of epidemic, contagious, and diathetic forms of disease, which are, it is true, accompanied by inflammation, but of a lower or asthenic character, and these require tonics, alteratives, and stimulants. Undue depletion ought to be avoided in persons who are the subjects of the gouty, the venereal, or the scrofulous diatheses; and whenever any of these affections co-exist with, or precede, inflammation, the disease ought not to be considered as of a sthenic character, and the cure should be sought rather by correcting the prevailing morbid taint in the system than in indiscriminate depletion; and some of these constitutional maladies, especially scrofula, required cod-liver oil, iodine, iron, meat, wine, and beer.

The paper concluded with a sketch of the treatment of pneumonia as it presented itself in children, in vigorous adults, in the inhabitants of towns and cities, in persons labouring under fever, in its typhoid form, and in its complication with tubercular phthisis; in each of which cases the treatment required was very different, owing to the peculiar features which the malady assumed.

Editor's Letter Box.

PUBLIC PROSTITUTION

LETTER FROM WILLIAM ACTON, ESQ.

SIR,—Your correspondent F.R.C.S. but echoes the language of the ministerial paper, the *Globe*, which, in a semi-official leader a few nights ago, asserted "that the authorities have been prevented from interference by the sense, that however desirable the reforms might be, the results of meddling might be the aggravation of the evil, or the creation of new evils." Every social reformer has been met in the onset of his agitation by fears of this description. But having lately read Dr. Livingston's travels, and having there seen what a determined resolution can effect, I am induced not to be foiled by slight obstacles, but take a sanguine view of the impediments which stand in the way of social reform.

If F.R.C.S. points to the dangers, let me, on the other hand, state a few of the advantages we have already attained.

1. It is a great step to have made in advance when we consider that the subject is discussed at all. The English community have come to regard public discussion and agitation as indispensable in the promotion of any reform, of whatever kind; and if you, Sir, have had lately time to even cursorily read the public papers, you will see that the great social evil has become one of the questions of the day, which cannot any longer be shirked. But a few weeks ago I was met by the reply, that this subject, prostitution, did not admit of discussion; and yet to-day no less than two leading articles, and several letters, have appeared in the public journals, thus most satisfactorily proving the interest taken in the subject by the press of this country, and inducing me to hope that, ere long, F. R. C. S. will be one of our warmest advocates.

2. It is a great step in advance when we find two rectors of influential parishes publicly admitting, although with shame, that it is impossible to suppress prostitution altogether. It is a good omen for the future when we find philanthropic men merging petty differences, and content to postpone larger views, acting with those who at present are only disposed to consider street immorality. We all acknowledge the difficulty that surrounds the subject; but our mutual friend, F. R. C. S., must admit that the external social aspect of the streets cannot be worse—it may be better; and I think I could prove to him, that we are not reduced to the alternative suggested by Sir G. Grey to a late deputation, viz., of leaving the streets as they are, or introducing the foreign system, at which F. R. C. S. hints.

My opponent's appeal to the fears of the public reminds me somewhat of the conduct of an injudicious nurse who quiets children by telling them stories of bogies in the cupboard, that will commit all sorts of horrors if they, her charges, do not lie still. You, Sir, I feel sure, cannot approve of such infantile intimidation, but will probably agree with me, that it is incumbent upon our profession, now that the streets are about to be cleared, to attempt the establishment of some industrial occupation, or reformatory, for the assistance of those who will be thus thrown out of an employment which they have been hitherto allowed to exercise without any impediment. It is in this sense that I hope to receive your support, and I have the honour to remain, etc., William Acton.

46, Queen Anne Street, Cavendish Square, January 21st, 1858.

[We see very little chance of the present movement against prostitution coming to anything. Of this we feel certain, that a much more common sense view of the subject must be taken than the gentlemen forming the deputation to Sir George Grey took, or seemed capable of taking. Editor.]

REMOVAL OF THE CERVIX UTERI BY THE ECRASEUR.

Letter from John Armstrong, M.D.

Sir,—Permit me to correct an error into which I inadvertently fell in my paper on the operation for the removal of the cervix uteri by the écraseur. My attention has been directed to two similar operations; one by Mr. J. F. Nicholson, of Stratford Green; the other by Dr. McClintock, Master of the Lying-in Hospital, Dublin. My impression that mine was the first case of the kind was, therefore, an error, and I take the earliest opportunity of correcting it.

I am, etc. John Armstrong.

Gravesend, January 25th, 1858.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

In these lists, an asterisk is prefixed to the names of Members of the Association.

BIRTHS.

Beardsley. On January 17th, at Ulverstone, Lancashire, the wife of *Amos Beardsley, Esq., Surgeon, of a son.

Burchell. On January 21st, at 1, Kingsland Road, the wife of Peter L. Burchell, M.B., of a daughter.

Falconer. On January 21st, at Bath, the wife of R. Wilbraham Falconer, M.D., of twin sons.

Forbes. On January 24th, at 9, Devonport Street, Gloucester Square, the wife of J. Gregory Forbes, Esq., Surgeon, of a daughter.

Marshall. On January 20th, at 10, Savile Row, the wife of John Marshall, Esq., F.R.S., Surgeon, of a son.

Shillingford. On January 21st, at Hill Street, Peckham, the wife of J. S. Shillingford, Esq., Surgeon, of a son.

MARRIAGES.

Leathes—Pett. Leathes, Charles A. Stanger, Esq., of Bombay, to Emilia Louisa, eldest daughter of Alfred Pett, M.D., of Upper Avenue Road, Regent's Park, at Bombay, on December 5th, 1857.

DEATHS.

Beardsley. On January 17th, at Ulverstone, Lancashire, Harriet, wife of *Amos Beardsley, Esq., Surgeon.

Black. On January 18th, at the residence of his father, 2, George Square, Edinburgh, Thomas Black, civil engineer, aged 28 (late of Manchester), son of *James Black, M.D.

Clark, William, Esq., Surgeon, at Grove Cottage, South Hackney, on January 21st.

Donnelly, William, M.D., at Seabrook, near Sandgate, aged 63, on January 19th.

Fuller. At Fort William, Calcutta, lately, aged 17, Helen Catherine, fourth daughter of the late Charles Wray Fuller, Esq., Surgeon H.E.I.C.S.

Gordon. On December 24th, 1857, at Pernambuco, aged 29, of yellow fever, Bertha, wife of Charles Gordon, M.D.

Hassard, Ross, Esq., Surgeon Royal Artillery, at the Danish Hospital, St. Thomas's, of yellow fever, aged 41, on December 16th, 1857; also, on November 3rd, 1857, at Port Royal, Jamaica, of yellow fever, Mary Anne, wife of the above.

Hawkins. On January 22nd, at 36, Colet Place, Anne, wife of James Hawkins, Esq., Surgeon.

Rogers, John, Esq., Surgeon, at Newport Pagnell, Bucks, aged 70, on January 21st.

PASS LISTS.

Royal College of Surgeons. Members admitted at the meeting of the Court of Examiners, on Friday, January 22nd, 1858:—

Adrien, John, Oldtown, co. Dublin
Beaumont, John Morton, Walton Place, Upper Chelsea
Byrne, Theodore Edgar Dickson, Whickham, Gateshead-on-Tyne
Cooke, Louis Richard, Orchard Street, Portman Square
Daly, Michael, Mallow, co. Cork
Faulder, John Jeffery, Newcastle
Ford, James, Sandford, Devon
Giraud, Charles Hervé, Petersfield, Hants
King, Gilbert Lennox, Royal Navy
Ley, Edwin Granville, Rochester
Robinson, Augustus, Annapolis Royal, Nova Scotia

At the same meeting of the Court—

Evans, Richard, passed his examination for Naval Surgeon. This gentleman had previously been admitted a member of the College: his diploma bearing date February 22nd, 1850.

Apothecaries' Hall. Members admitted on Thursday, January 21st, 1858:—

Barrett, James, Banbury
Davies, Henry Harries, Llandyssul, South Wales

HEALTH OF LONDON:—WEEK ENDING JANUARY 23rd, 1858.

[*From the Registrar-General's Report.*]

The total number of deaths in London in the week that ended on Saturday (January 23rd) was 1344. In the ten years 1848-57 the average number of deaths in the weeks corresponding with last week was 1207, but as the deaths of last week occurred in an increased population, the average to admit of comparison must be raised proportionally to the increase, in which case it will become 1328. From these statements it appears that the number of deaths in the present return slightly exceeds the estimated amount. Measles is now more fatal than any other disease in the miasmatic order; it was fatal last week in 66 cases. Whooping-cough occupies the next place, having carried off 54 children; 35 persons died from typhus,

and 33 from scarlatina; three children died of the last-named disease at a house in Thomas-street, Kennington.

Diseases of the respiratory organs proved fatal in 361 cases, of these 213 were attributed to bronchitis, and 115 to pneumonia. Only 7 fatal cases were returned under the designation of influenza. The death of a woman is recorded as the result of insufficient nourishment, and a patient died at St. Thomas's Hospital from carbuncle. A widow attained the age of 90.

The causes of death in the improved nosological arrangement, are divided into five classes. Last week 273 persons died of the zymotic class of diseases. Of the constitutional diseases (including consumption, 163), 266 persons died. Local diseases (including inflammations) were fatal in 624 cases. Of developmental diseases, including those peculiar to parturition, the young and the aged, 131 persons died; and of violent deaths 19 cases were recorded.

Last week the births of 941 boys and 857 girls, in all 1798 children, were registered in London. In the ten corresponding weeks of the years 1848-57 the average number was 1563.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·231 in. The mean daily barometrical reading was above 30 in. on every day last week, except Wednesday, when it was 29·753 in. The mean temperature of the week was 37·5°, which is 0·7° above the average of the same week in 43 years (as determined by Mr. Glaisher). On Wednesday the excess of mean temperature above the average was as much as 7·3°. The *highest* temperature in the week was 50·0° on Wednesday; the *lowest* was 30·5° on Friday. The mean daily range of the week was 9·1°. On Thursday the range was only 4·8°. The mean dew point temperature was 31·2°, and the difference between this and the mean air temperature was 6·3. The mean temperature of the water of the Thames was 38·4°. The mean degree of the humidity of the air was 78, complete saturation being represented by 100. A little snow fell on Thursday. The wind was variable throughout the week. No rain fell.

POOR-LAW MEDICAL REFORM.

Mr. Griffin has forwarded us the subjoined correspondence for publication.

"12, Royal Terrace, Weymouth, 20th January, 1858.

"MY LORDS AND GENTLEMEN,—I have the honour to enclose you a copy of the letter I sent to the Board of Guardians of the Weymouth Union. . . . . The result of this election proves that the Guardians will not under any circumstances improve my position. I therefore pray you to exert your legal authority and give me a salary commensurate with the duties I have to perform.

"In your letter of Oct. 15th, 1857, you state: 'with reference to the alleged inadequacy of the salary which you receive for your services as medical officer, the Board can only refer you to the communication which they have already addressed to you on the subject.' I have referred to these documents, and append extracts from them for your re-perusal, as, possibly, amidst your multifarious correspondence you may have forgotten the precise import of the sentences devoted to the subject of my remuneration.

"My Lords and Gentlemen, I ask for an increase of salary as an act of justice and not as a favour; and I trust you will tell me definitely whether you will or will not accede to my request. If you will state that it is your intention to bring in a Bill this session for the amelioration of the position of the Poor-law medical officers, then I will cheerfully waive private claims and await its accomplishment. I respectfully call your attention to a minute of your honourable predecessors in office, dated February 6th, 1841, and their instructional letter, dated March 12th, 1842, and also the fourth resolution of the Select Committee of the House of Commons on Medical Relief, dated July 1854. I have the honour to be, etc.

"RICHARD GRIFFIN.

"The Poor-law Board."

Extracts from Letters from the Poor-law Board to Mr. Griffin.

"Oct. 2, 1855. 'I am directed by the Poor-law Board to acknowledge the receipt of your letter of the 29th ult., and to inform you that the statements which it contains will meet with their consideration.'

"Nov. 22, 1855. 'The Guardians will, at the end of twelve months from the date of your appointment, give the subject of your salary their farther consideration. Under these circumstances, and looking to the short period for which you have been the medical officer of the Weymouth district, the Board must decline to interfere further in the matter.'

"March 10, 1856. '. . . . to inform you that the statements which it contains shall meet with their consideration.'

"Dec. 18, 1856. '. . . . to inform you that the subject to which it relates will receive their attention.'

"April 18, 1857. '. . . . acknowledge the receipt of your letters of the 4th and 15th instants, in reference to the remuneration which you receive for your services as the medical officer of the Weymouth district of the Weymouth Union.'

Aug. 29, 1857. '. . . . of the 19th inst., in reference to the amount of your remuneration as the medical officer of the Weymouth district of the Weymouth Union.'

"Oct. 15, 1857. 'With reference to the alleged inadequacy of the salary which you receive for your services as medical officer, the Board can only refer you to the communications which they have already addressed to you on the subject.'"

Report of the Select Committee on Medical Relief, July 1854.

"*Resolution* 4. They also recommend that the Poor-law Board should direct their attention to the salaries of the medical officers, which, in some cases, appear to be inadequate to the duties they are required to perform."

Extract from a minute of the Poor-law Commissioners, Oct. 31, 1840.

"By sec. 46 of the Poor-law Amendment Act, the Poor-law Commissioners are empowered, when they may see occasion, to regulate the amount of salaries payable to such officers respectively, and the time and mode of payment thereof.

"It follows, from the provisions just quoted, that the commissioners can authorise the guardians to appoint paid officers, but that the appointment of the officers is made by the guardians; and that the power of determining the amount of the salaries of such officers is vested in the commissioners, and they cannot forbear from calling the attention of the guardians to the obvious advantages of the arrangement that the same authority should not fix the salary and make the appointment.

"It is difficult to over-rate the importance to a union of possessing a body of efficient paid officers. Without efficient paid officers, no union, of whatever size, can conduct its Poor-law business in an economical and satisfactory manner. Although the vigilant superintendence of the guardians is necessary to the well-working of the union, it is not alone sufficient. Here and there an individual candidate, well fitted for a union officer, may, from peculiar circumstances, be willing to accept it for an adequate salary; but even he will, probably, after a short time become dissatisfied, and will desire to transfer his services to some other union, or to seek some other sort of employment."

Instructional Letter of Poor-law Commissioners, March 12, 1842.

"The committee of 1838 expressed an opinion that the medical districts seemed to be in some instances inconveniently large, and that they should be of such a size as to admit of an easy access of the medical man to his patients. It is the earnest wish of the commissioners to carry into effect the recommendation of the committee, that 'the remuneration of medical officers should be such as to ensure proper attention and the best medicines, and the guardians will doubtless perceive that unless the medical officer be adequately remunerated, no vigilance on their part will suffice to secure proper attendance and medicines to the poor under his care.'"

Copy of Letter to the Board of Guardians, Weymouth Union.

"12, Royal Terrace, Weymouth, 18th January, 1858.

"SIR,—In accordance with the terms of your advertisement, I beg to offer myself as a candidate for the appointment of medical officer for the Melcombe Regis district. Should you do me the favour to elect me, and the Poor-law Board confirm the election, I beg you will then consider that I place in your hands my appointment as medical officer of the Weymouth district. . . . .

"I have been for nearly three years your medical officer—ample time for you to judge whether I have or have not faithfully performed my duties to the poor. Has a complaint been so much as even whispered that I have neglected my patients? During the time I have amputated two legs above the knee, excised an elbow-joint, and performed other operations of importance; but how have I been remunerated for these valuable services? Why, by a salary which, when divided by the number of patients attended, gives but one shilling and threepence halfpenny for each case. One patient named Puckett I have attended with but a slight intermission nearly three years, and I have during this time cured an extensive disease of one leg, and have been compelled to remove the other by amputation; in addition I have given her an immense quantity of medicine,

for all of which I have received the munificent sum of two shillings and seven pence, the average payment my salary allows for the two orders sent me in this case, and she is still under treatment; but I shall receive no further pay if the orders continue to average as they have done. Surely there is no guardian who will say this is a just remuneration for such services. I have removed the entire elbow-joint of a patient named Cole, and thereby saved her arm, which will be very useful to her; for this somewhat formidable operation, attending her eleven months, and finding her with medicines all the time, splints, etc., I am paid but one shilling and threepence halfpenny. Is there a guardian, however careful he may be of the interests of the ratepayers, who can say this is as it ought to be? The salary you pay the officer of the Wyke district is, on the average of two years, at the rate of 16*s.* 3½*d.* per order; that for the workhouse, according to a written statement made me by the late officer, Mr. Boyd, is 4*s.* 11*d.* per case of illness; that for the Melcombe district 2*s.* 2½*d.*; whilst I have but 1*s.* 3*d.* per order. Is this fair? Is it just for a public body to treat me thus? Are you doing your duty as guardians to suffer it to continue? You may be displeased with me for publishing these accounts to the world; but were you in my situation, would you quietly rest under such monstrous injustice as I have suffered for nearly three years? Surely, now you have the opportunity to improve my position a little, and but a very little, you will gladly seize the opportunity, and give me the Melcombe district. "I am, Sir, etc., Richard Griffin.

"The Chairman of the Board of Guardians, Weymouth Union."

Want of Exercise in the United States. What we most want in this toiling country is physical exercise. The brain is set going very early in life, and kept going until the oil gives out, and the machine jars and creaks itself still. We find out the impregnable fact that the body is wofully neglected in our loud, tumultuous cities. Their male denizens are nailed down to their business, which is almost always carried on in long, low stores, having an unstable temperature and an atmosphere thick and poisoned, or else in little offices which are rarely visited by healthy, genial sunlight, and are impregnated with a perfume anything but Arabic. In these impure places—doubled up at desks and crammed over counters—very many of the mercantile men spend the brightest and best hours of each day, often without so much as a stretch or a stride. When they go forth into the air and the light, it is only for a frenzied plunge through the trade streets, which they traverse with a startling and dangerous velocity, or for a quick passage to the structures they are pleased to call their homes. They are mentally exercised by violent thoughts of money—how to make it, how to increase and multiply it, how to invest it, how not to lose it—not how to enjoy it, or to live and love life without it. Their arms and legs, their chests, and backs, and cheeks—how shamefully these noble possessions are treated! Do they not deem it a bore and a waste of time to engage in bodily exercise of any kind? Do they not rather signal an omnibus (if, by mysterious chance, that eccentric vehicle happens to be about), and jostle and jolt to their destination, than seek it afoot? Even when the red summer sun beats and burns them out of town, and they rush off to the cooler country, do they find pleasure in long, brisk morning walks over airy hills and fields—in rambles through rough woods—in the active employment of their muscles in hearty, wholesome recreation of that kind? They are to be discovered lounging away the time in armchairs in shady porches, surrounded by volumes of tobacco-smoke, or fidgetting themselves over marked out routes between the house and the tree, or the post, or some other proximate object, or taking lazy views of the fair landscapes from the recesses of stiff, stupid carriages. They give their frames no chance whatever to knit and expand. Now, it is too late to hope for reform in the ways of those whom we have been sketching. But our young men and women ought to make the exercise of their bodies one of the serious duties of their life. Only look at them! The incipient man (we take an extreme case) is a thin, frail creature. His face is sharp and sallow, and has a bleared and bilious appearance. His back can be spanned with both hands, and there will be some hand to spare. The muscles of his arm consist of soft, loose lumps, which give to the touch; his chest, even with the aid of stiff-starched dickey and bulging vest, don't protrude perceptibly, and never makes the mildest attempt at a heave; his legs are matters to be implicitly believed in without any solid proof as to their reality. In fact, the last-named members have become so appallingly lean and same-all-the-way-up, that the tailors have established a wide, flappy style of integments, into which they slip and are lost, the external effect on the casual observer being agreeably deceptive. The youth spends his spare time in smoking and drinking himself nastily sick, in rotating uncomfortably about a billiard-table in a glare of gas and a fog of burnt tobacco, in unbending stately dancing at hot balls and parties, and in the various pursuits which none but a boy, who is tightly annexed to the strings of his mother's apron, can refrain from indulging in. The poor, parched fellow, wants active, earnest exercise. He needs it more than he needs the Latin lexicon and the Greek roots; more than he needs counting-house cultivation or a lucrative situation down town. The immature lady, as far as we are permitted to judge by her overwhelming and distended dress, is suffering in like manner. Where are the roses which glow on the full cheeks and bursting lips of the unlaced, bouncing country girl? Where is the sparkle that lives in the eye of her who spends less time over her whole toilette than our town belle spends over the most insignificant portion of hers, and whose delight is rather to drink in the jolly fresh breeze of the morning, than the stale and stifling air of the midnight saloon of grim gaiety and flimsy fashion? Her waist is waspish and her foot is minute, but the chances are strong that she stoops or limps, has a cold, and does no blooming without the aid of rouge. How many of our town ladies (as somebody else has asked) envy the fresh, developed beauty, of their "girls in the kitchen"? We want plenty of gymnasiums and all sorts of schools for the body. We want a spacious lot, like the Common, in Boston, on which bustling games can be played. We would that skating and sleighing and swimming were thoroughly understood and appreciated by all the young, and that vigorous pedestrianism were not held to be a bore; for it is fearful to observe with what rapidity we are dwindling in stature, and how every generation is weaker and more dwarfish than its predecessor. (*Philadelphia Evening Journal.*

The French Academy of Sciences. At the last sitting, Dr. Guyon sent in various coloured drawings of the state of the body and viscera under the influence of yellow fever. Dr. Guyon, having studied that disease for many years in America, had visited Lisbon during the late invasion, where he had caused the drawing in question to be executed. He chiefly called attention to the colour assumed by the liver, which at the same time tends to degenerate into a fatty substance. M. Reynaud, Director of the Lighthouses of France, and M. Degrand, civil engineer, presented an account of a series of experiments undertaken to ascertain the comparative distances at which coloured lights are perceptible. From these experiments, it appears that a red light is seen from a greater distance than a white or any other light, while blue and green are the least perceptible.

British Meteorological Society. At the last meeting of the British Meteorological Society, held on Wednesday, January 20th, Dr. R. D. Thomson, F.R.S., in the chair, a paper was communicated by Dr. Smallwood, "On Ozone and the Meteorology of Isle Jesus, Canada." In this paper, Dr. Smallwood gave observations tending to confirm those heretofore made with regard to the presence or absence of ozone in the atmosphere, as connected with the prevalence or non-prevalence of cholera.

Epidemiological Society. On Monday, February 1st, a paper, "On Drainage and Water Supply, in Connexion with Public Health," will be read by Dr. Snow.

TO CORRESPONDENTS.

POSTAGE OF MANUSCRIPT AND PRINTED MATTER.

Any amount of manuscript or printed matter, singly or together, provided it contains nothing in the form of a letter, is transmitted through the post, in packets *open at the ends*, at the following rates: not exceeding 4 ounces, one penny; above 4 and not exceeding 8 ounces, twopence; above 8 ounces and not exceeding 1 pound, fourpence; for every additional half-pound or under, twopence.

Members should remember that corrections for the current week's Journal should not arrive later than Wednesday.

Communications have been received from:—Mr. J. S. Gamgee; Dr. P. H. Williams; Dr. G. Goddard Rogers; Mr. T. Holmes; Mr. J. J. Pope; Mr. Holmes Coote; Mr. J. A. Hingeston; Dr. J. C. Hall; Mr. Griffin; Mr. Rawes; Dr. Camps; Mrs. W. Baines; Dr. McWilliam; Mr. J. Ness; Mr. W. Acton; Mr. E. Westall; Mr. J. Whitehead; Dr. James Black; Dr. Birch; Mr. W. H. Eagland; Mr. R. O. Blythman (with enclosure); Dr. J. W. Keyworth; Dr. G. Hewett; and Mr. T. M. Stone.